

AM/FM STEREO RECEIVER

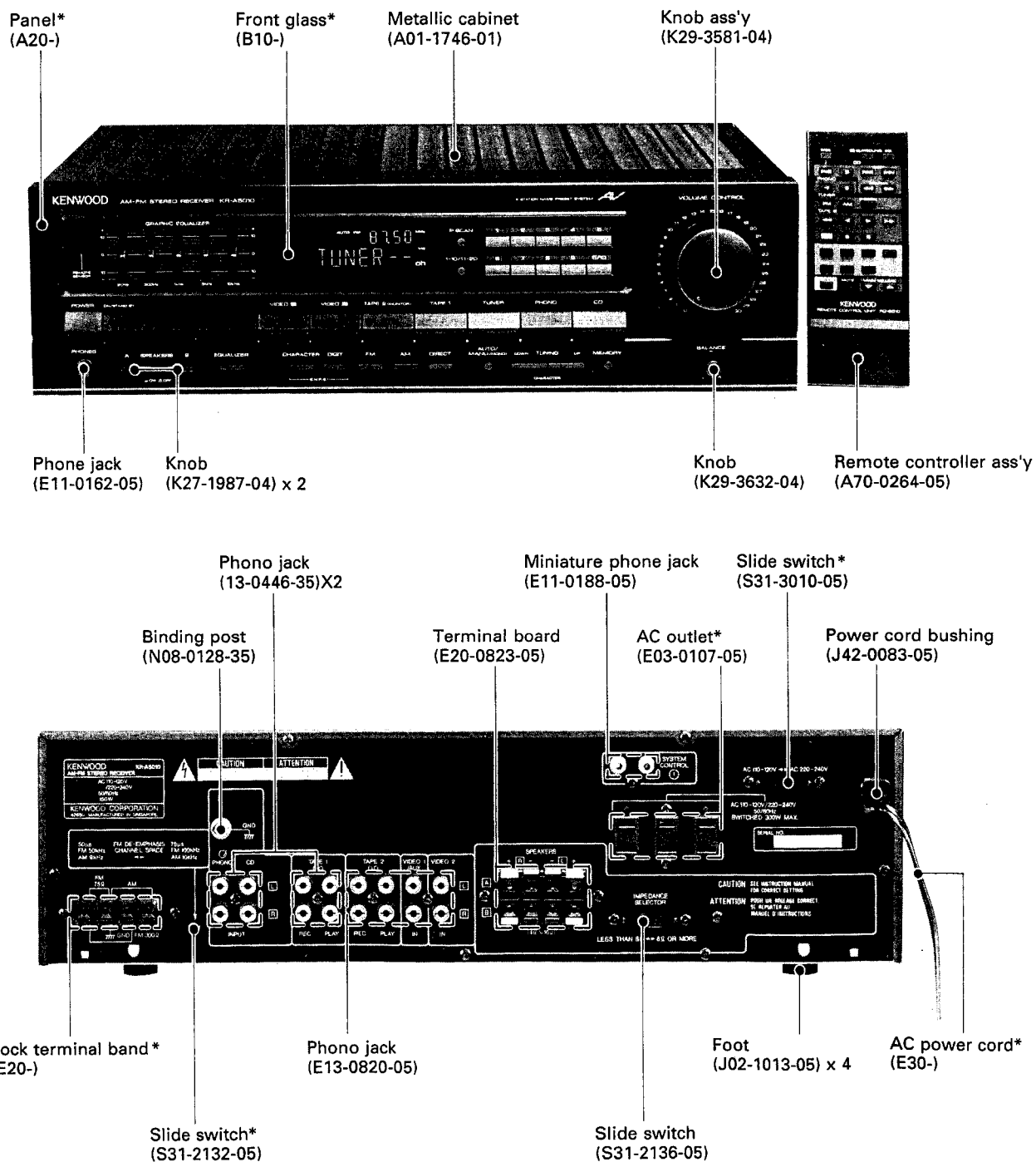
KR-A5010

SERVICE MANUAL

KENWOOD

KENW-01737

© 1989-4 PRINTED IN JAPAN
B51-3895-00 (O) 2713



*Refer to parts list on page 42.

KR-A5010

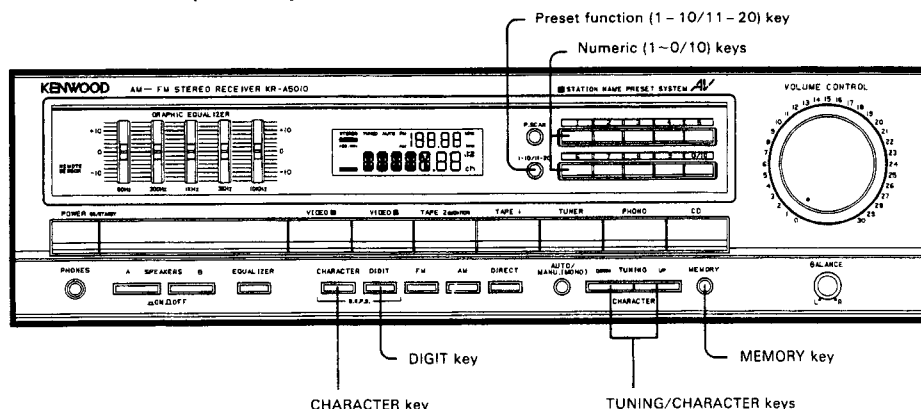
CONTENTS/LISTENING TO BROADCASTS

CONTENTS

| | | | |
|--|----|--|------------|
| LISTENING TO BROADCASTS | 2 | 6. CX7925B : PLL (X14-253X-XX : IC2) | 19 |
| REMOTE CONTROL | 4 | ADJUSTMENT | 20 |
| DISASSEMBLY FOR REPAIR | 5 | REGLAGE | 21 |
| BLOCK DIAGRAM | 8 | ABGLEICH | 22 |
| CIRCUIT DESCRIPTION | | ADJUSTMENT/REGLAGE/ABGLEICH | 23 |
| 1. Description of components | 8 | VOLTAGE TABLE | 24 |
| 2. CXP5016-330S | | PC BOARD (COMPONENT SIDE VIEW) | 25 |
| Microprocessor (X13-619X-XX : IC5) | 10 | PC BOARD (FOIL SIDE VIEW) | 29 |
| 3. STK4201/2 : Main amplifier | | SCHEMATIC DIAGRAM | 33 |
| (X14-253X-XX : IC7) : K, P, U, UE, M, X type ... | 17 | SCHEMATIC DIAGRAM | 37 |
| 4. STK4201/5 Main amplifier | | EXPLODED VIEW | 41 |
| (X14-2532-71 : IC7) : E type | 17 | PARTS LIST | 42 |
| 5. AN7470 : FM MPX (X14-253X-XX : IC3) | 18 | SPECIFICATIONS | BACK COVER |

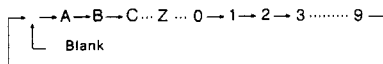
LISTENING TO BROADCASTS

This unit allows both the frequencies and the names of broadcasting stations to be preset. When a station is recalled by preset tuning, the display shows both the frequency and the name of the station. (S.N.P.S.)

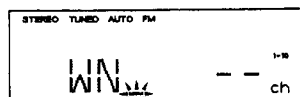
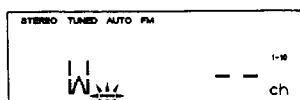
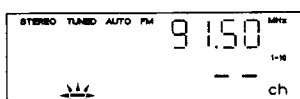


Selection of display characters with the TUNING/CHARACTER key

Every time the UP segment of the TUNING/CHARACTER key is pressed, the displayed character is varied in the following order:



(Pressing the DOWN segment varies the displayed character in the reverse order.)

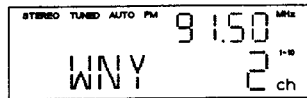
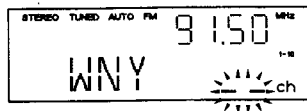


■ To preset station names and frequencies (The station names can be displayed only with station preset in CH 1 to CH 10.)

Example 1: To preset the 91.50 MHz FM broadcast frequency and its station name "WNY" in preset channel number 2.

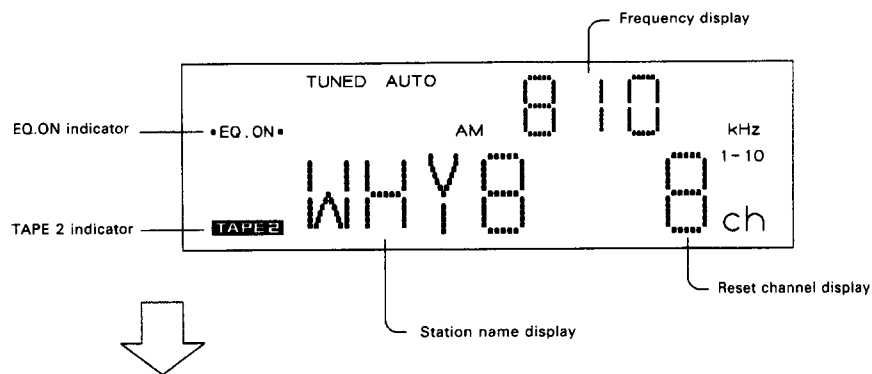
1. Tune to 91.50 MHz FM.
2. Press the CHARACTER key.
3. Press the TUNING/CHARACTER key to select "W".
4. Press the DIGIT key to set the character and move to the next location.
5. Press the TUNING/CHARACTER key to select "N".
6. Press the DIGIT key.

LISTENING TO BROADCASTS



7. Press the TUNING/CHARACTER key to select "Y".
8. Since the fourth column should be left blank, press the DIGIT key twice or press the CHARACTER key.
9. Press the MEMORY key.

10. Press numeric key "2" to select preset channel 2.



■ To change a preset station name

Example 2: To change the name of the 810 kHz AM broadcast memorized in preset channel 8 to "W G Y".

1. Recall the preset channel 8 with the preset function key and the numeric keys according to "Preset tuning".

2. Press the CHARACTER key.

3. Press the DIGIT key to move to the first character location to be changed.

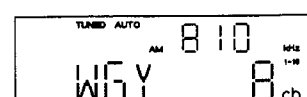
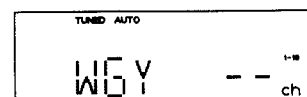
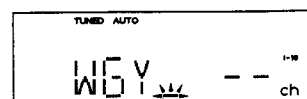
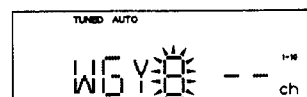
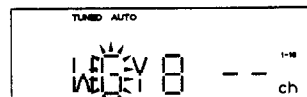
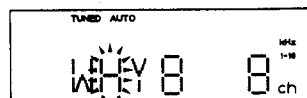
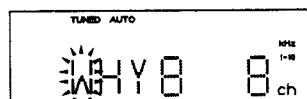
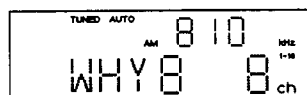
4. Press the TUNING/CHARACTER key to select "G".

5. Press the DIGIT key twice.

6. Press the TUNING/CHARACTER key to select a blank.

7. Press the DIGIT key or the CHARACTER key.
8. Press the MEMORY key.

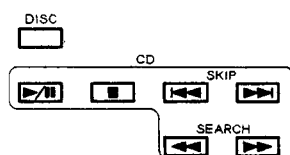
9. Press numeric key "8" to select preset channel number 8.



KR-A5010

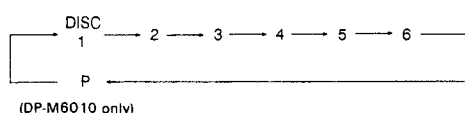
REMOTE CONTROL

■ CD player control keys

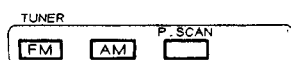


These keys allow the same operations as the keys with the same names on the CD player.

The DISC key is for use exclusively with a multiple CD player. Pressing the DISC key allows one of DISC 1 to DISC 6 to be selected in the following cycle.

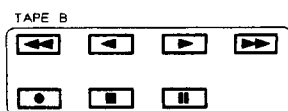


■ Tuner control keys



These keys allow the same operations as the keys with the same names on the receiver.

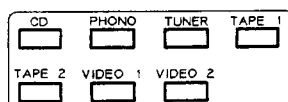
■ TAPE B deck control keys



These keys allow the same operations as the keys with the same names on the TAPE B deck.

Note:
When the Fast Forward key is to be pressed after the Rewind key was pressed, press the Stop key first, then press the Fast forward key.

■ Input selector keys



These keys have the same functions as the input selector keys on the receiver.

■ POWER key



Switches the power of the receiver to ON/STAND-BY (OFF).

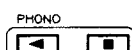
■ Equalizer/Surround key



EQ. key has same function as EQUALIZER key on the receiver.

The main body is not equipped with the Surround function.
Therefore, the SURROUND key causes no effect even when it is pressed.

■ Turntable (PHONO) control keys



The Play () and Stop () keys are provided.

■ Volume level keys



MAIN VOLUME keys:

Pressing the key rotates the VOLUME CONTROL on the main body of the unit clockwise to increase the volume, and pressing the key rotates it counterclockwise to decrease the volume.

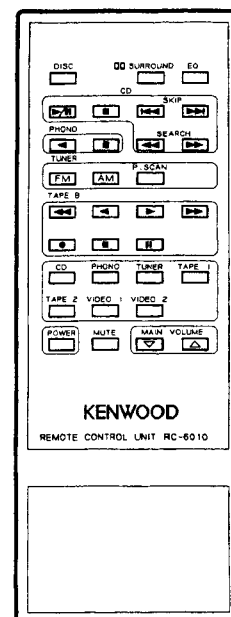
MUTE key:

The MUTE key is not provided on the main body. The muting can be controlled only from the remote control.

To mute the sound temporarily

Press the MUTE key on the remote control unit.

- The point indicator on the MAIN VOLUME CONTROL knob blinks, and the output sound is muted.
- The muting is canceled when the MUTE key is pressed again or the MAIN VOLUME UP or DOWN key is pressed.
- When the muting is canceled, the point indicator on the MAIN VOLUME CONTROL knob stops blinking and starts to light steadily.



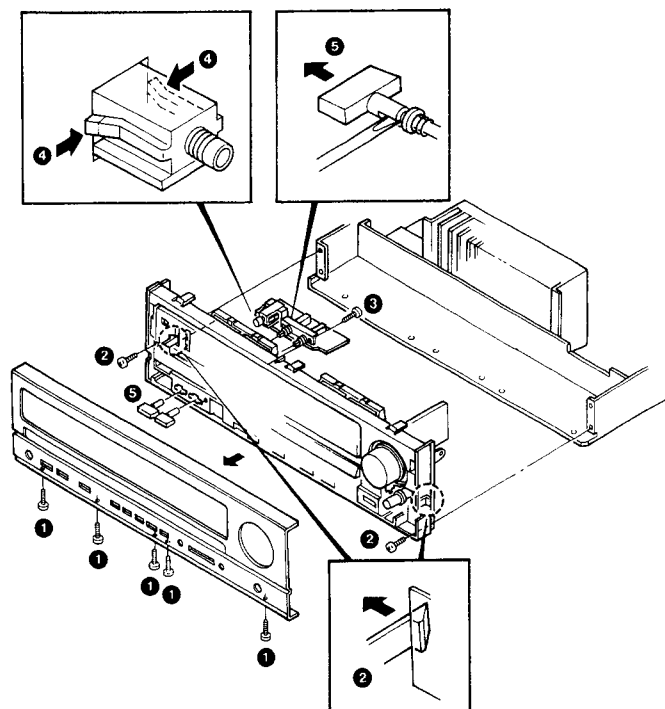
In case any of the following models is used, the CD manual search cannot be operated from this remote control unit:

DP-M97, DP-57, DP-47

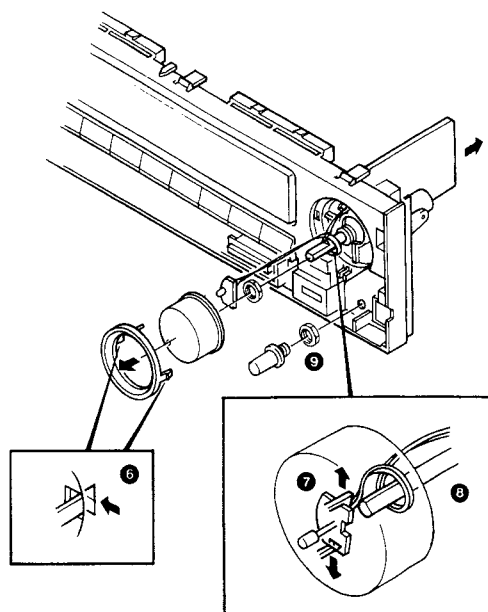
DISASSEMBLY FOR REPAIR

Before repair work, take out the case.

1. Remove the five screws, then detach the front panel (1).
2. Remove the two screws, then undo the catch of the sub panel (2).
3. Remove the one screw (3).
4. Undo the catch of the PHONES, then detach the PHONES board (X14-) (B/3) (4).
5. Detach the knob using a screwdriver (5).



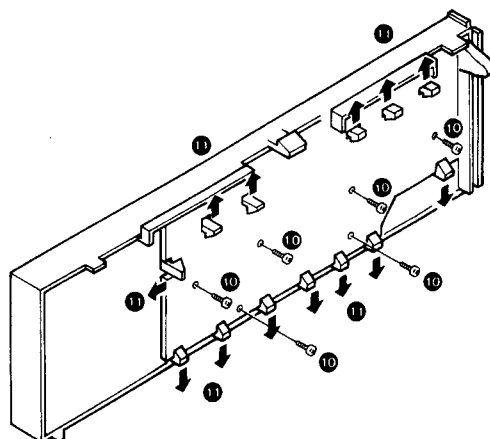
6. Undo the catch, then detach the knob ring (6).
7. Undo the catch of the VOL LED (7).
8. Disconnect the LED leads (8).
9. Take out the hexagonal washer of the knob (9).



KR-A5010

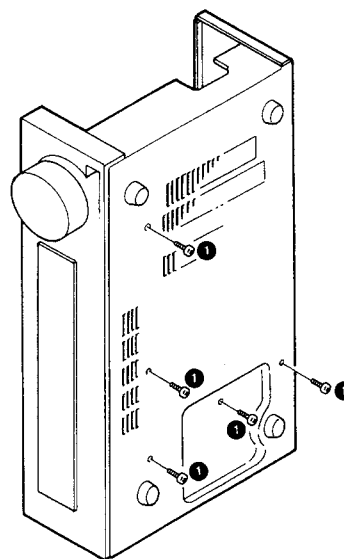
DISASSEMBLY FOR REPAIR

10. Remove the six screws, then detach the display board (X13-) (A/11) (10).
11. Undo the 13 catches (11).

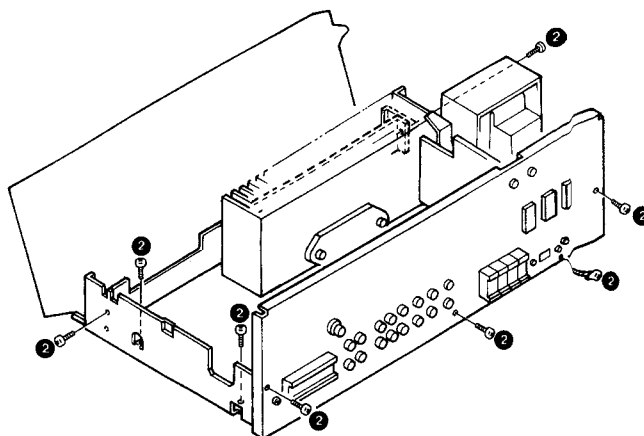


When repairing or checking the main PC board and power supply PC board refer to the following steps.

1. Remove the five screws (1).

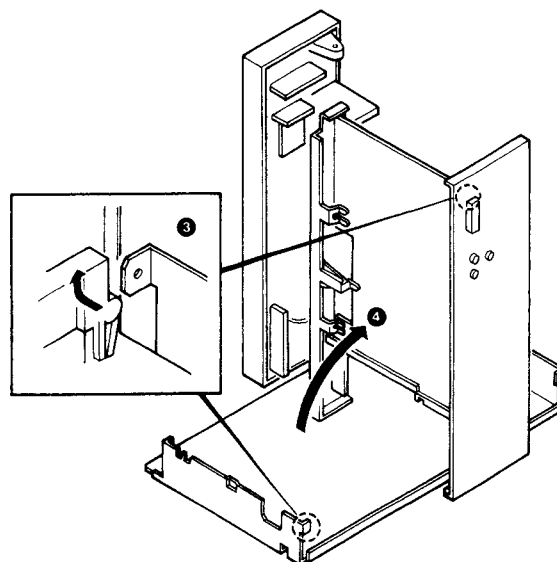


2. Remove the eight screws (2).



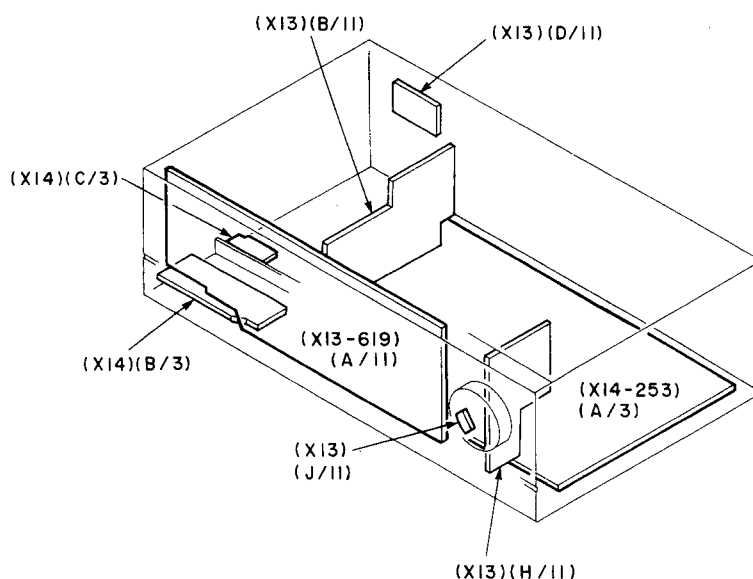
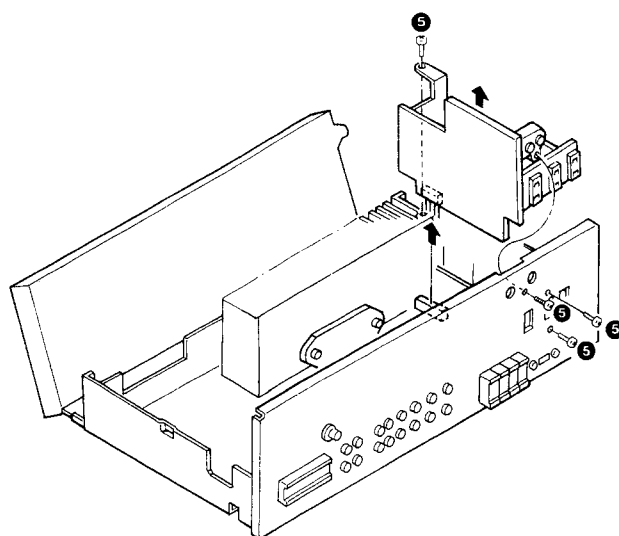
DISASSEMBLY FOR REPAIR

3. In this way, the FM terminal mold will hit against the chassis. To avoid this, lift up the main body putting aside the rear panel in the direction of an arrow (3 4).



4. When picking up the power supply block, remove four screws (5).

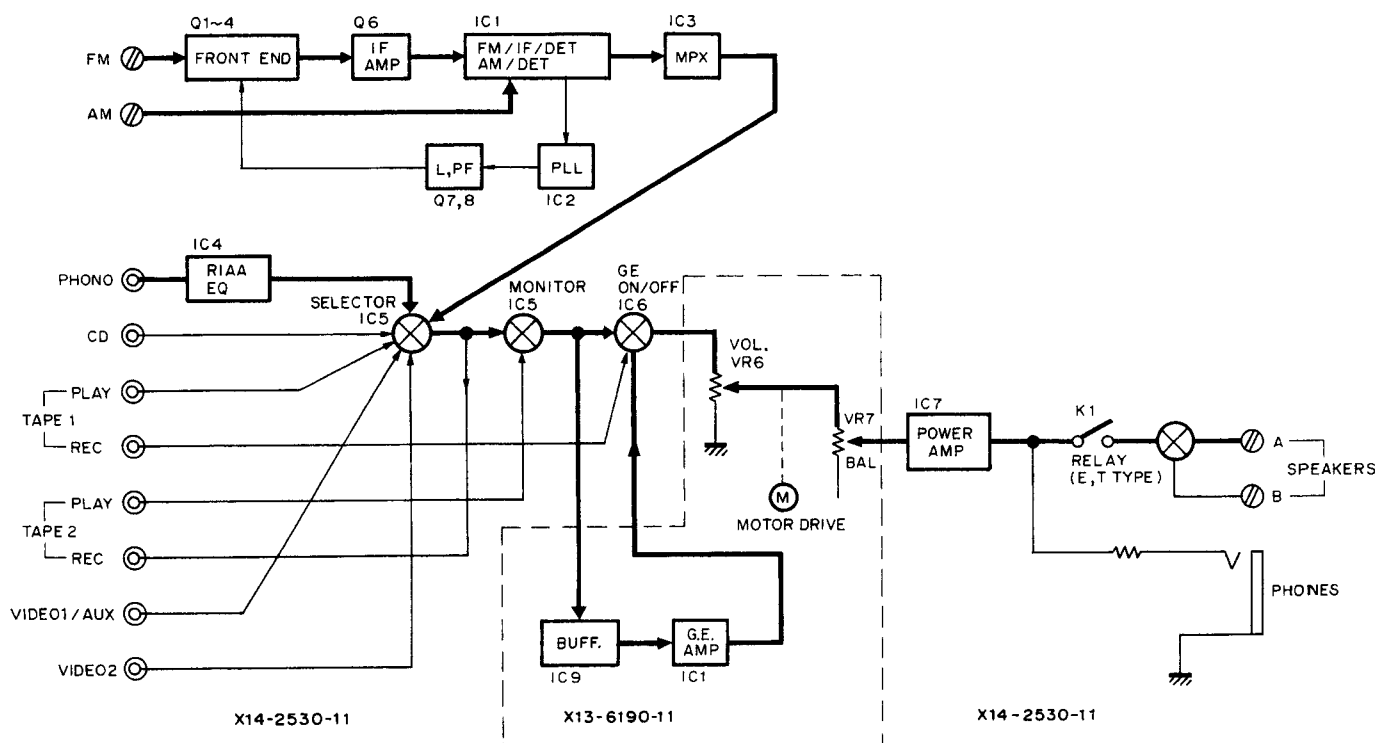
Note : Be adequately careful in inserting the connector.



KR-A5010

BLOCK DIAGRAM/CIRCUIT DESCRIPTION

Block diagram



Circuit description

1. Description of Components

SUB UNIT (X13-619X-XX) 0-11 : K, P 0-22 : M, U, UE 0-71 : X 2-71 : E

| Ref. No. | Part No. | Use/Function | Operation/Condition/Compatibility |
|----------|---------------------------------|-----------------------------|---|
| IC1 ~ 3 | AN6554 NJM2058D μPC4574C | Graphic equalizer amplifier | |
| IC4 | PST529C | Reset | Reset for microprocessor. |
| IC5 | CXP5016-330S | Microprocessor | |
| IC6 | LB1641 | Motor driver | For volume control. |
| IC9 | NJM4558D M5218P | Buffer amplifier | For equalizer amplifier. |
| Q1 | 2SC945(A)(Q,P) 2SC1740S(Q,R) | Reset | For microprocessor. |
| Q2 | 2SC945(A)(Q,P) 2SC1740S(Q,R) | Buffer amplifier | For FL driver. |
| Q3 | 2SA733(A)(Q,P) 2SA933S(Q,R) | Switch | Channel space selector (M, U, UE type). |
| Q4, 5 | DTC124EN | Indicator drive | Point of volume control knob. |
| Q6 | DTA124EN | Indicator drive | Light <STEREO> letter in FL. |
| Q11 | 2SC2003(L,K) | + AVR | +5.6V. |
| Q12 | 2SB772 | - AVR | -30V. |
| Q13 | 2SC2320(E,F) | Relay driver | Power supply ON/OFF. |

CIRCUIT DESCRIPTION

TUNER UNIT (X14-253X-XX) 0-11 : K, P 0-22 : M, U, UE 0-71 : X 2-71 : E

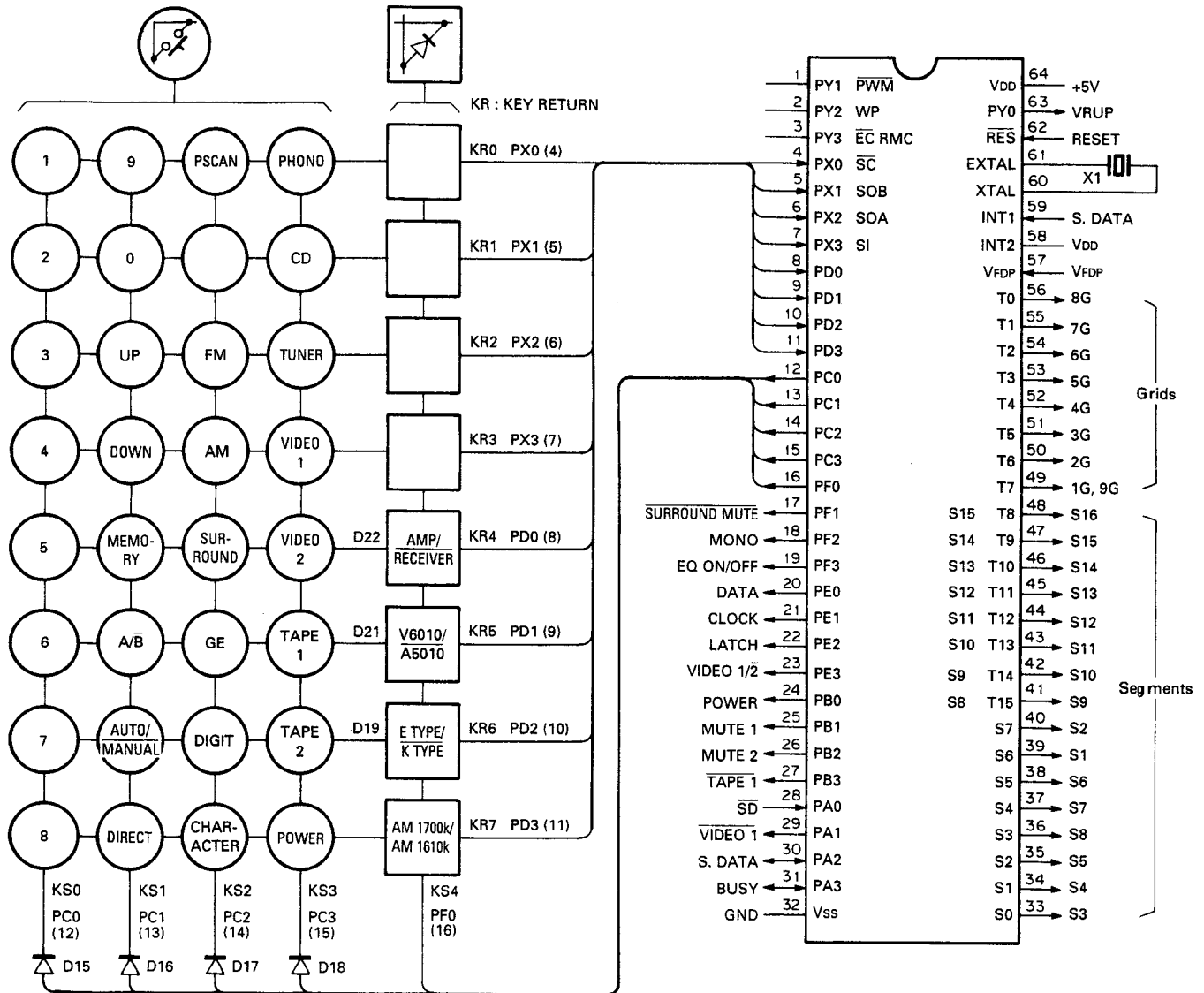
| Ref. No. | Part No. | Use/Function | Operation/Condition/Compatibility |
|----------|---------------------------------|----------------------------------|---|
| IC1 | LA1265 | FM/AM system IC | FM IF amp detection and control. AM mixing, IF amp and detection. |
| IC2 | CX-7925B | PLL IC for frequency synthesizer | PLL for electronic tuning. |
| IC3 | AN7470 | MPX IC | MPX demodulator. |
| IC4 | M5218P-A NJM4558D-A | Equalizer amplifier | Equalizer amplifier for PHONO (MM). |
| IC5 | LC7820 | Input selector SW | Analog switch array for input selector switches. |
| IC6 | TC9215P | GE and TAPE 1 SW | Analog switch array for GE ON/OFF and TAPE 1 REC OUT ON/OFF. |
| IC7 | STK4201/2 | Main amplifier | Main amplifier (2ch). (K, P, U, UE, M, X type) |
| IC7 | STK4201/5 | Main amplifier | Main amplifier (2ch). (E type) |
| IC8 | μPC7812HF | Constant voltage power supply | 3-pin regulator for the +12V constant voltage power supply. |
| Q1 | 2SK241(Y) | RF amplifier | High-frequency amplifier. (K, P, U, UE, M, X type) |
| Q1 | 3SK73(GR) | RF amplifier | High-frequency amplifier. (E type) |
| Q2 | 2SC1923(O) | Mixing | Frequency converter. |
| Q3 | 2SC1923(R,O) | OSC | Local oscillator. |
| Q4 | 2SC1923(R,O) | OSC buffer | OSC OUT (oscillator output) for synthesizer. |
| Q5 | 2SK161(Y,GR) | OSC buffer | For local oscillator input to mixer. (E type) |
| Q6 | 2SC1923(R,O) | FM IF amplifier | 10.7MHz amplifier. |
| Q7 | 2SC1845(F,E) | LPF | Low pass filter for PLL. |
| Q8 | 2SC945(A)(Q,P) 2SC1740S(Q,R) | LPF | Low pass filter for PLL. |
| Q9 | 2SC945(A)(Q,P) 2SC1740S(Q,P) | Buffer | Buffer for L6. (E type) |
| Q10,11 | 2SC945(A)(Q,P) 2SC1740S(Q,R) | Emphasis switch | ON for 75μs, OFF for 50μs. (M, U, UE type) |
| Q12 | DTC124ES | FM +B control | |
| Q13 | DTA114ES | FM +B control | |
| Q14 | DTC124ES | AM +B control | |
| Q15 | DTA114ES | AM +B control | |
| Q17,18 | 2SC2878(B) | Muting | TAPE REC OUT pop noise prevention during switching selector switch. |
| Q19 | 2SA733(A)(Q,P) 2SA933S(Q,R) | Muting control | |
| Q20,21 | 2SC2878(B) | Muting | Main amplifier pop noise prevention during switching selector switch. |
| Q22 | 2SA733(A)(Q,P) 2SA933S(Q,R) | Muting control | |
| Q25 | 2SA733(A)(Q,P) 2SA933S(Q,R) | Muting | Main amplifier pop noise prevention during switching power switch. |
| Q26,27 | 2SC1845(F,E) | Protection | |
| Q29 | 2SA733(A)(Q,P) 2SA933S(Q,R) | Error amplifier | -12V error amplifier. |
| Q30 | 2SA733(A)(Q,P) 2SA933S(Q,R) | Constant voltage circuit | -12V. |
| Q31 | 2SD1266 | Constant voltage circuit | -12V. |

KR-A5010

CIRCUIT DESCRIPTION

2. CXP5016-330S : Microprocessor (X13-619X-XX : IC5)

2-1. Key matrix connections



2-2. Setting of destinations, models and specifications depending upon diode key matrix

The setting of destinations, models and specifications is made according to the initial set diode key matrix. In the following, "1" means "with diodes" and "0", "without diodes".

1) Destination set SW : E type/K type

| Destination set SW | Destination | BAND | Reception frequency band | Channel space | Reference frequency |
|--------------------|-------------|------|--------------------------------|---------------|---------------------|
| 0 | K | FM | 87.5 ~ 108.0MHz | 100kHz | 50kHz |
| | | AM | 530 ~ 1610kHz 530 ~ 1700kHz | 10kHz | 10kHz |
| 1 | E | FM | 87.5 ~ 108.0MHz | 50kHz | 50kHz |
| | | AM | 531 ~ 1602kHz | 9kHz | 9kHz |

2) Model set SW : AMP/RECEIVER, V6010/A5010

| Model set SW | | Model | Function | | |
|--------------|-------------|----------|--------------|-----------------------|------------------|
| AMP/RECEIVER | V6010/A5010 | | Tuner | Dolby surround effect | Video signal I/O |
| 0 | 1 | KR-V6010 | Provided | Provided | Provided |
| 0 | 0 | KR-A5010 | Provided | Not provided | Not provided |
| 1 | 0 | KA-78 | Not provided | Not provided | Not provided |

3) Specification set SW : AM1700k/AM1610k

With destination set SW at "0" : Effective only for K TYPE

| Specification set SW | AM reception frequency band |
|----------------------|-----------------------------|
| 0 | 530 ~ 1610kHz |
| 1 | 530 ~ 1700kHz |

CIRCUIT DESCRIPTION

2-3. Explanation of terminals

| Pin No. | Pin name | I/O | Name | Function |
|---------|------------------------|-----|---------------|---|
| 1 | PY1 | O | VRDOWN | Volume down operation control. "H" : Volume down operation, "L" : Normal status. |
| 2 | PY2 | I | BACK UP | Backup (power OFF) detection. "H" : Normal status, "L" : Power OFF. At power ON, an "H" signal is input. When an "L" signal is input, the clock pulse oscillation for the microprocessor is stopped and the backup mode is entered. When the signal is level becomes "H" from "L", the normal status is restored from the backup mode. |
| 3 | RMC | I | REMOCON | Remote control signal input. Active "L". |
| 4 ~ 11 | PX0 ~ PX3 PD0 ~ PD3 | I | KR0 ~ KR7 | Key return signal inputs. "H" : with input, "L" : without input. |
| 12 ~ 16 | PC0 ~ PC3 PF0 | O | KS0 ~ KS4 | Key scan signal outputs. Normally "H". When a key is pressed ON, key scan is performed. |
| 17 | PF1 | O | SURROUND MUTE | Surround effect audio signal output ON/OFF control. "H" : Output ON, "L" : Output OFF. |
| 18 | PF2 | O | MONO | Compulsory monaural output control. "H" : Monaural, "L" : Stereo. |
| 19 | PF3 | O | EQ ON/OFF | Equalizer ON/OFF control. "H" : Equalizer ON, "L" : Equalizer OFF. |
| 20 | PE0 | O | DATA | CX-7925B (PLL IC)/LC7820 (Selector IC) control serial data output. Data is latched at the rise of the clock pulse. |
| 21 | PE1 | O | CLOCK | CX-7925B/LC7820 control serial data transfer shift clock pulse output. Data is latched at the rise of the clock pulse. |
| 22 | PE2 | O | LATCH | Data latch signal output to CX-7925B. Data is latched particularly at the rise of the clock pulse. |
| 23 | PE3 | O | VIDEO 1/2 | Video signal selection control. "H" : VIDEO 1, "L" : VIDEO 2. |
| 24 | PB0 | O | POWER | Power supply circuit relay ON/OFF control. "H" : Relay ON, "L" : Relay OFF. |
| 25 | PB1 | O | MUTE 1 | Line output mute control. "H" : Mute ON, "L" : Mute OFF. |
| 26 | PB2 | O | MUTE 2 | TAPE 2 recording output mute control. "H" : Mute OFF, "L" : Mute ON. |
| 27 | PB3 | O | TAPE 1 | TC9215P (Selector IC) control. TAPE 1 recording output ON/OFF control. "H" : Others, "L" : TAPE 1. |
| 28 | PA0 | I | SD | Tuner tuning detection. "H" : No signal, "L" : Tuned. |
| 29 | PA1 | O | VIDEO 1 | TC9215P (Selector IC) control. VIDEO 1 recording output ON/OFF control. "H" : Others, "L" : VIDEO 1. |
| 30 | PA2 | O | SDATA | Serial data output. Shorted with pin 59 for use. |
| 31 | PA3 | I/O | BUSY | Serial busy signal I/O. |
| 32 | Vss | I | GND | GND. |
| 33 ~ 48 | S0 ~ S15 | O | S1 ~ S16 | FL tube segment drive signal outputs. |
| 49 ~ 56 | T7 ~ T0 | O | 1G ~ 9G | FL tube digit drive signal outputs. (However, grids 1G and 9G identical with each other.) |
| 57 | VFDP | I | VFDP | FL tube output driver circuit power supply. |
| 58 | INT2 | I | - | Unused pin. Shorted with V _{DD} . |
| 59 | INT1 | I | SDATA | Serial data input. Shorted with pin 30 for use. |
| 60 | XTAL | O | XTAL | Clock pulse generation circuit output. |
| 61 | EXTAL | I | EXTAL | Clock pulse generation circuit input. |
| 62 | RST | I | RESET | Reset signal input. |
| 63 | PY0 | O | VRUP | Volume up operation control. "H" : Volume up operation, "L" : Normal operation. |
| 64 | VDD | I | VDD | Positive power supply. |

CIRCUIT DESCRIPTION

2-4. Initial setting

1) Function initial setting

Last channel memory FM : 87.5MHz
 AM (K) : 530kHz
 AM (E) : 531kHz
 Station name last channel memory/
 station name preset channel memory All blank
 Tuning mode Auto
 Preset channel memory Ch1~Ch20 all at FM 87.5MHz
 Band FM
 1-10/11-20 1-10
 Input selector Tuner
 Video monitor VIDEO 1
 Dolby surround OFF
 Equalizer DEFEAT
 TAPE 2 monitor OFF
 Muting OFF
 Power OFF

2) Microprocessor output port initial setting

Any figure in () is a pin number.

SURROUND MUTE (17) L
 MONO (18) L
 EQ ON/OFF (19) L
 VIDEO1/2 (23) H
 POWER (24) L
 MUTE 1 (25) H
 MUTE 2 (26) H
 TAPE 1 (27) H
 VIDEO 1 (29) H
 VRDOWN (1) L
 VRUP (63) L

The initial setting is performed in a following event :

1. When backup memory data is destroyed when reset is applied to the microprocessor.
2. When the power cord is plugged in to the AC wall outlet while pressing the TUNER key or MEMORY key.
3. When serial code "TEST : 71" is received during the test mode.

2-5. Test mode setting

1) Method of entering the test mode

1. While pressing the TUNER key and VIDEO 1 key, plug the power cord to the AC wall outlet.
2. When the test mode is unengaged, sent serial code "71".

In either case of 1 or 2, when the test mode is entered, the FL tube display all lights.

2) Method of canceling the test mode

1. Unplug the power cord from the AC wall outlet once.
2. Send the reset signal to the RESET pin or some other means to reset the microprocessor.
3. Send serial code "71". In this case, the microprocessor, when it receives serial code "71", engages the same state as when initial reset is applied. Thus, the RAM is once all cleared to enter the initial set state.

3) Contents of test mode

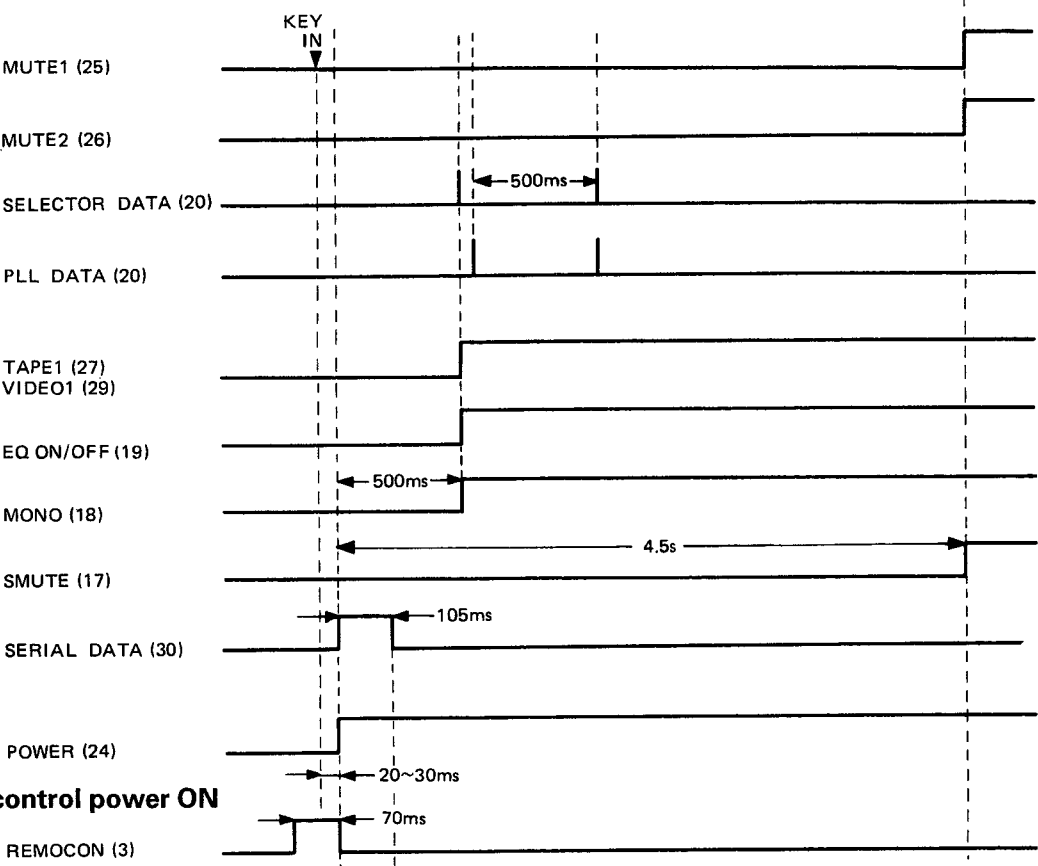
1. When the test mode is entered, the FL tube display all lights. This all lighting continues unless a effective remote control serial code or the test mode is canceled.
2. The test frequency is stored in memory for each preset channel. (For each frequency to be stored in memory, refer to its associated listing.)
3. When serial data is received, an operation different then the normal mode is performed. (About the operation of each code, refer to the serial test code table.) When a forbidden code is received, an uncontrolled run may occur, so that proper operation cannot be ensured.

CIRCUIT DESCRIPTION

2-6. Muting timing charts

(1) At power ON

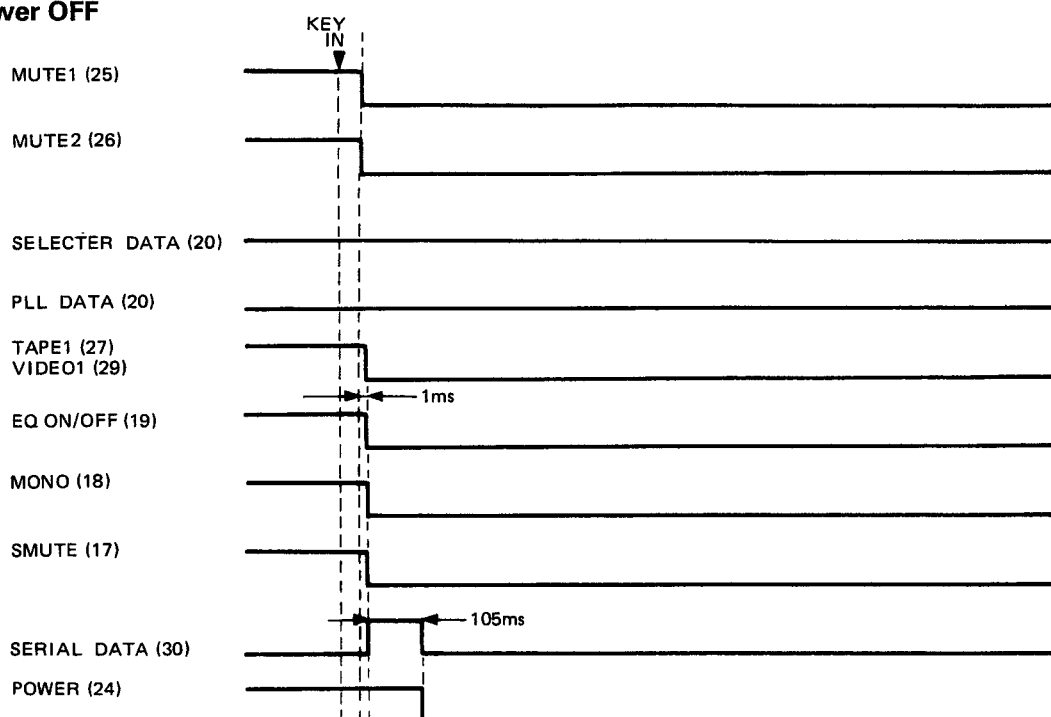
• At key power ON



• At remote control power ON

CIRCUIT DESCRIPTION

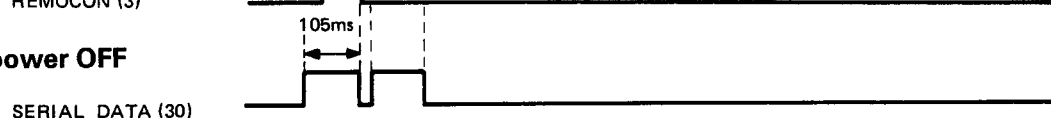
- (2) At power OFF
• At key power OFF



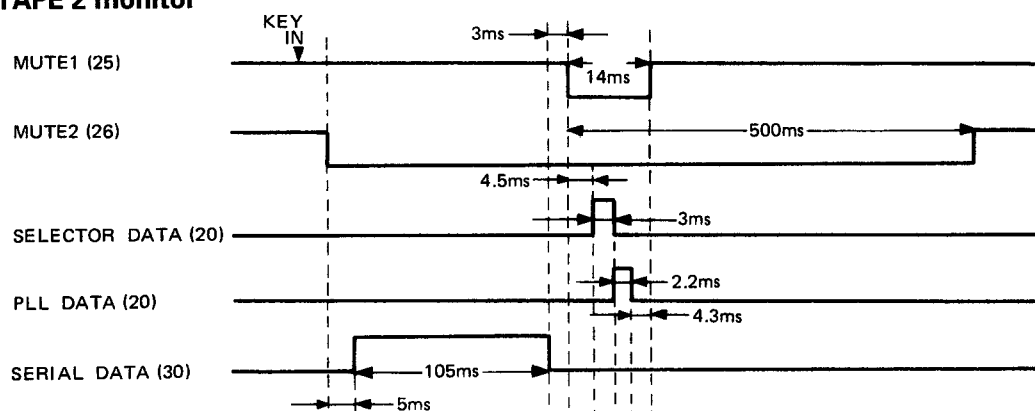
- At remote control power OFF



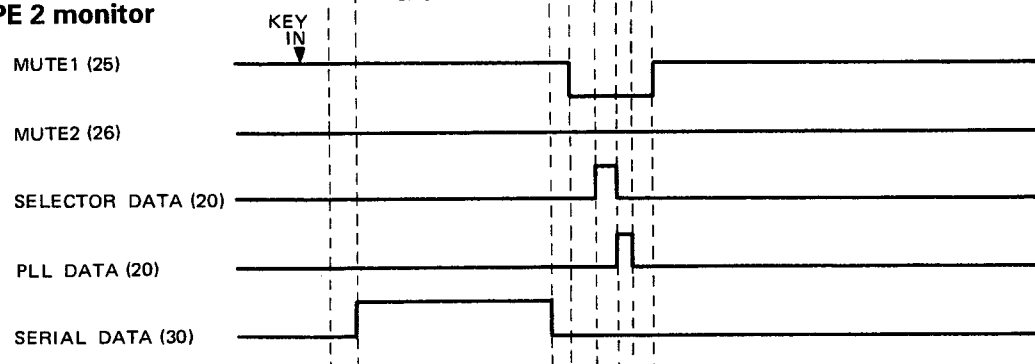
- At serial power OFF



- (3) At input selector selection
• Except for TAPE 2 monitor

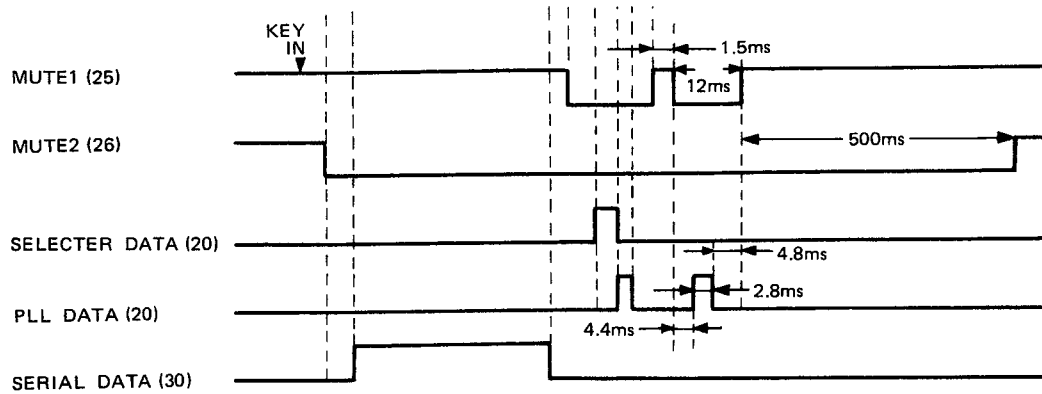


- During TAPE 2 monitor



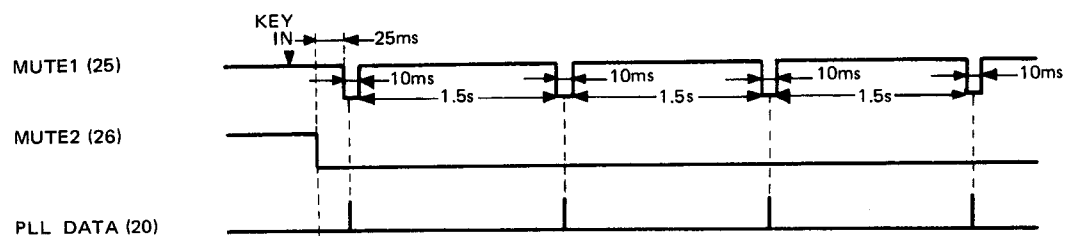
CIRCUIT DESCRIPTION

(4) At preset channel call

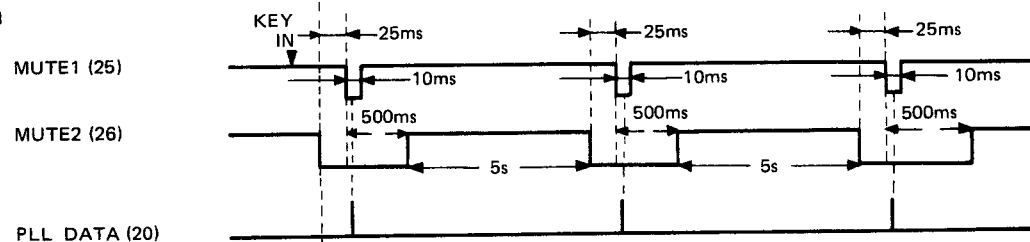


(5) At preset channel scan

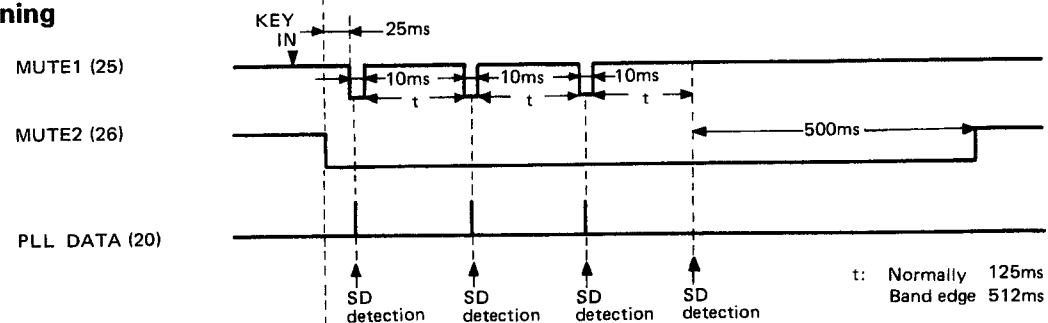
• Without station



• With station



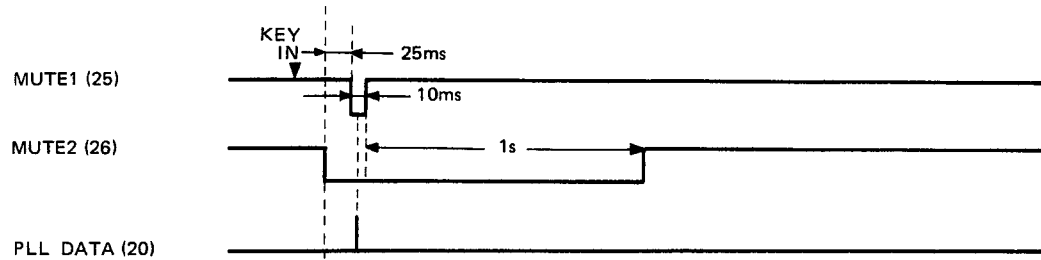
(6) At auto tuning



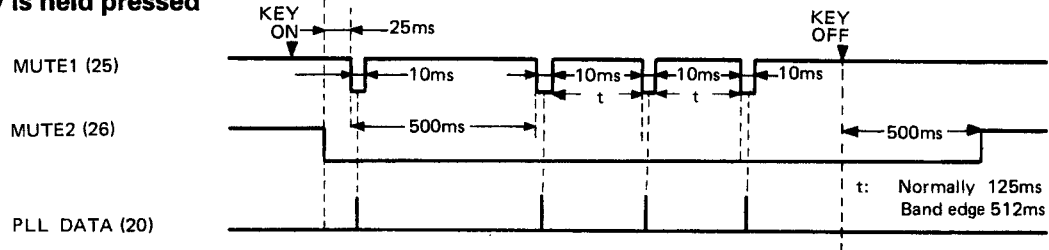
CIRCUIT DESCRIPTION

(7) At manual tuning

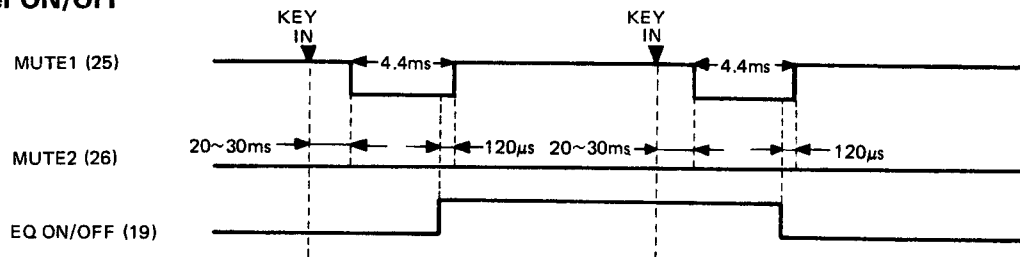
• When key is pressed simply



• When key is held pressed



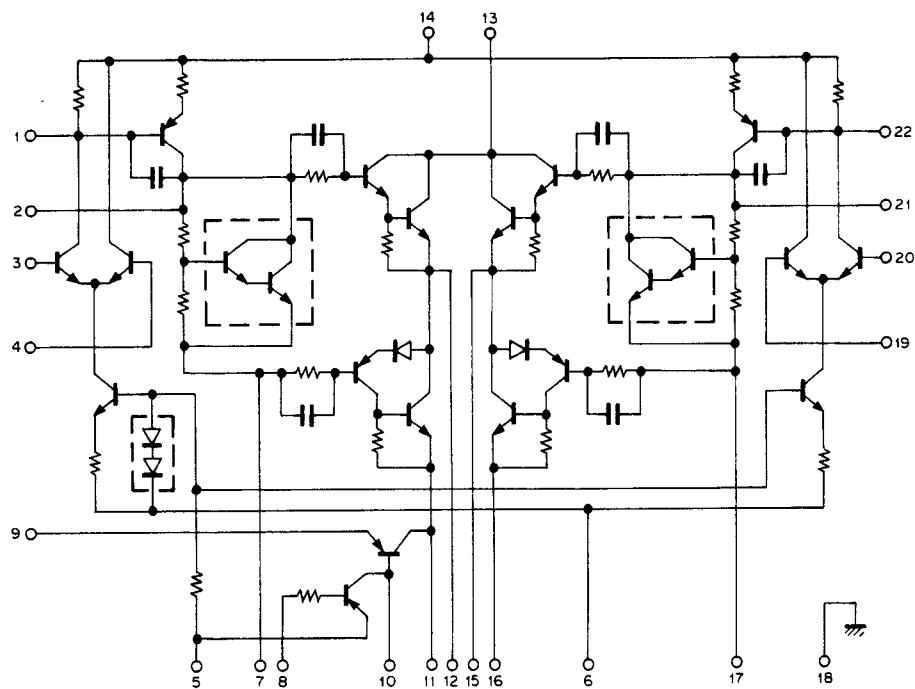
(8) At equalizer ON/OFF



CIRCUIT DESCRIPTION

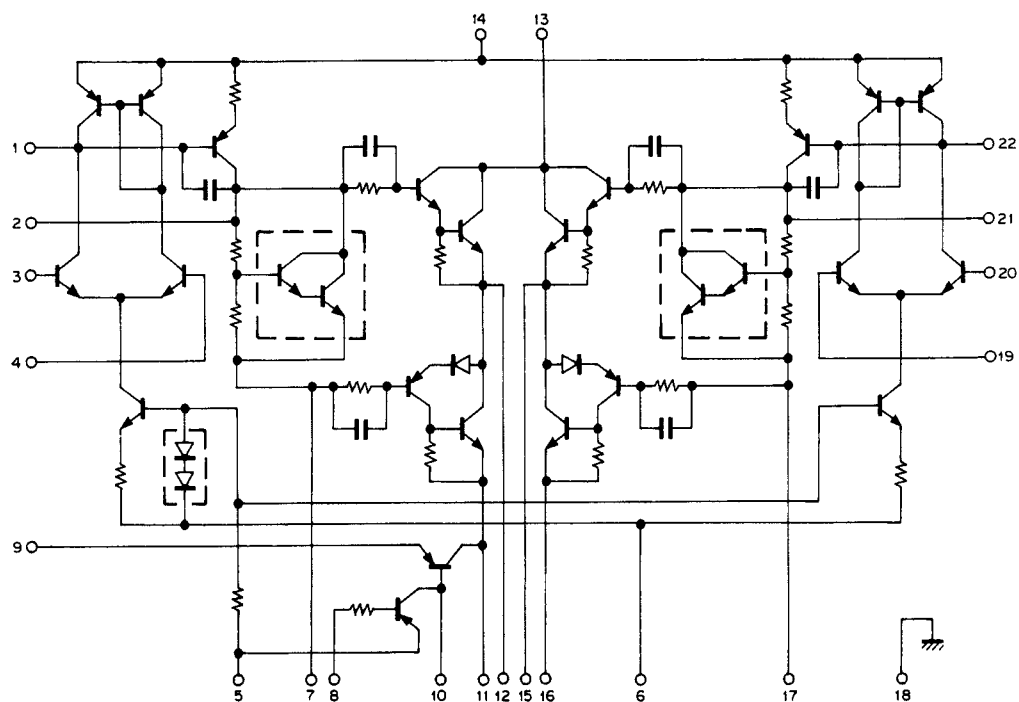
3. STK4201/2 : Main amplifier (X14-253X-XX : IC7) : K, P, U, UE, M, X Type

3-1. Equivalent circuit



4. STK4201/5 : Main amplifier (X14-2532-71 : IC7) : E Type

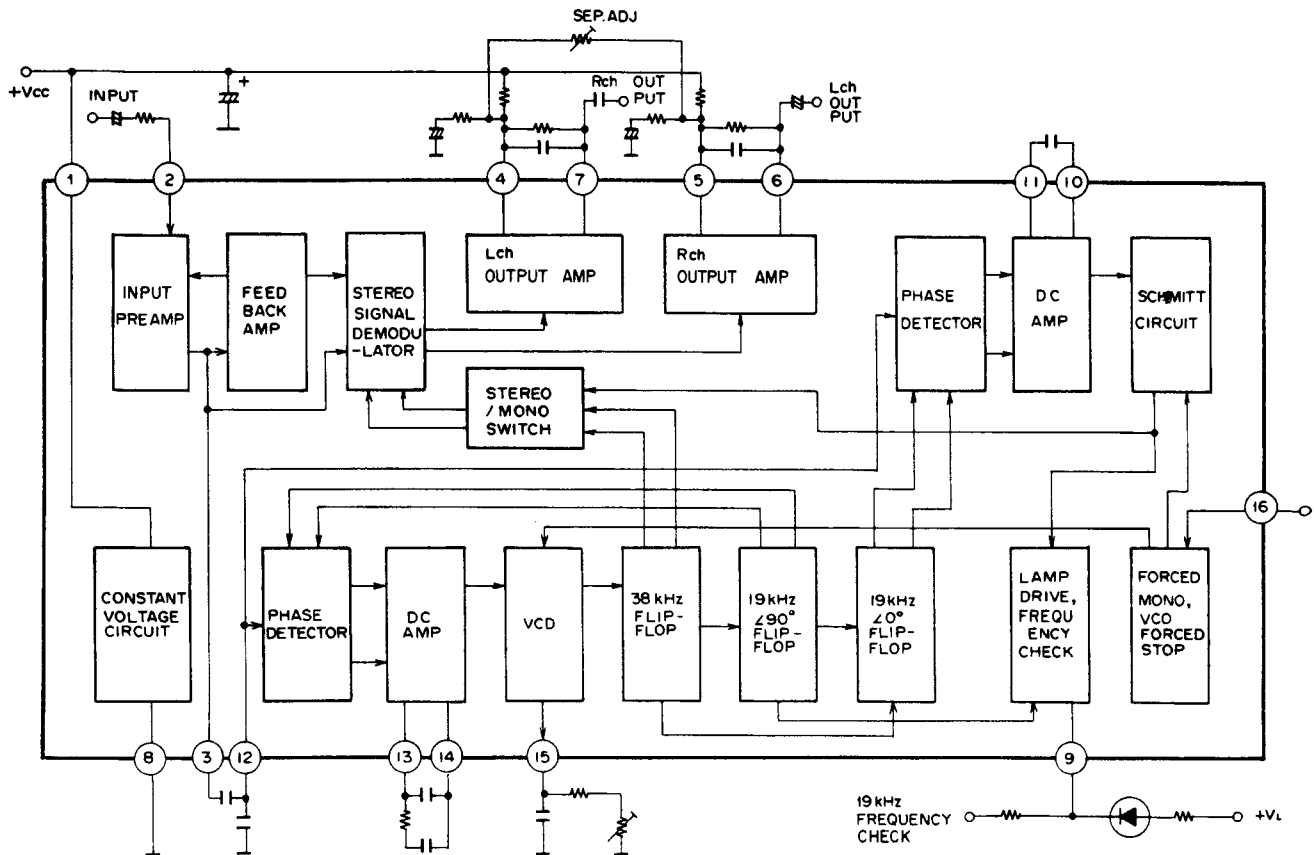
4-1. Equivalent circuit



CIRCUIT DESCRIPTION

5. AN7470 : FM MPX (X14-253X-XX : IC3)

5-1. Equivalent block diagram



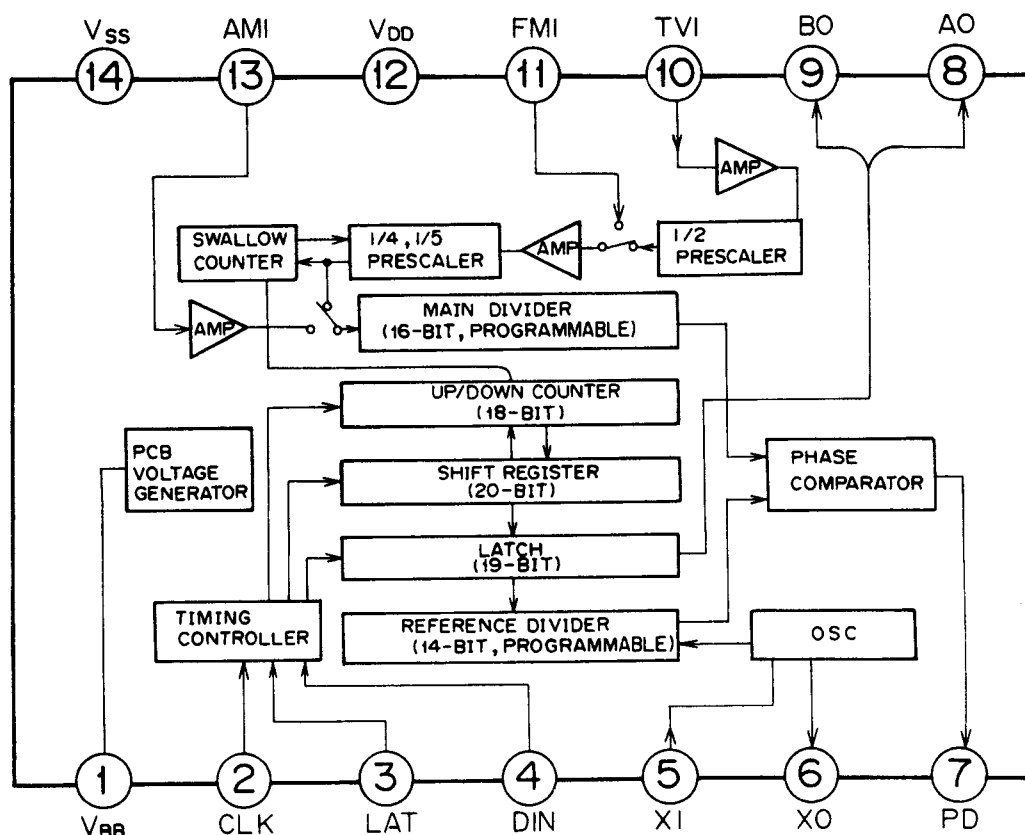
5-2. Terminal connection and functions

| Terminal No. | Connection/Function |
|--------------|---|
| 1 | Supply voltage (+Vcc) |
| 2 | Stereo composite signal, input terminal |
| 3 | Input preamp, output terminal |
| 4 | L CH output amp, feedback terminal |
| 5 | R CH output amp, feedback terminal |
| 6 | R CH output amp, output terminal |
| 7 | L CH output amp, output terminal |
| 8 | Grounding terminal |
| 9 | Stereo display lamp drive and 19 kHz frequency check terminal |
| 10 | Stereo signal detector circuit, low-pass filter terminal |
| 11 | Stereo signal detector circuit, low-pass filter terminal |
| 12 | PLL circuit, input terminal |
| 13 | PLL circuit, low-pass filter terminal |
| 14 | PLL circuit, low-pass filter terminal |
| 15 | VCO freerun oscillation frequency adjustment terminal |
| 16 | Forced mono/forced VCO oscillation stop terminal |

CIRCUIT DESCRIPTION

6. CX7925B : PLL (X14-253X-XX : IC2)

6-1. Block diagram and terminal configuration diagram



6-2. Terminal description

| Terminal No. | Symbol | Terminal Description |
|--------------|--------|--|
| 1 | VBB | PCB terminal (Connect a 0.01 μ F capacitor between the GND). |
| 2 | CLK | Input terminal for the clock used for 20-bit serial data input (Shifted at the rise). |
| 3 | LAT | Input terminal for the shift register input data latch signal (shifted at the rise) and, at the same time, for the Up/Down clock (status changed at the rise). |
| 4 | DIN | Data input terminal, also the Up/Down mode switching terminal (Up mode with "H" level, Down mode with "L" level). |
| 5 | XI | Connection terminals for the reference signal generator X'tal oscillator. |
| 6 | XO | (Max. 13 MHz, standard 4.0 MHz) |
| 7 | PD | Phase comparator output terminal (3-state). |
| 8 | AO | External control signal output terminal/Unlock signal output terminal (E/E MOS push-pull). |
| 9 | BO | External control signal output terminal/data check terminal (E/E MOS push-pull). |
| 10 | TVI | High-frequency signal input terminal (300 MHz or 350 MHz max.). With 1/2 prescaler. |
| 11 | FMI | High-frequency signal input terminal (150 MHz or 180 MHz max.). |
| 12 | VDD | Power supply (+5V). |
| 13 | AMI | High-frequency signal input terminal (40 MHz or 50 MHz max.). |
| 14 | VSS | Grounding terminal |

ADJUSTMENT

| No. | ITEM | INPUT SETTINGS | OUTPUT SETTINGS | TUNER SETTINGS | ALIGNMENT POINTS | ALIGN FOR | FIG. |
|--|---------------------|--|--|-------------------|------------------|--|------|
| FM SECTION Unless otherwise specified, the individual switches should be set as following: SELECTOR: FM MODE: FM MODE/AUTO | | | | | | | |
| 1 | BAND EDGE (1) | — | Connect a DC voltmeter between TP 6 (VT) and TP 5 (GND). | 87.5MHz | L7 (Front end) | 2.5V | (a) |
| 2 | BAND EDGE (2) | — | Connect a DC voltmeter between TP 6 (VT) and TP 5 (GND). | 108.0MHz | TC1 (Front end) | 8.0V | (a) |
| Repeat alignments 1 and 2 several times. | | | | | | | |
| 3 | RF ALIGNMENT | (A) 98.0MHz 1kHz, ± 75 kHz dev | (B) | MONO 98.0MHz | L2-4 (Front end) | Maximum amplitude and symmetry of the oscilloscope display. | |
| 4 | DISCRIMINATOR | (A) 98.0MHz 1kHz, ± 75 kHz dev 60dB μ (ANT input) | Connect a DC voltmeter between TP 3 and TP 4. | MONO 98.0MHz | L14 | 0V | (b) |
| 5 | VCO | (A) 98.0MHz 0 dev 60dB μ (ANT input) | Connect a 330k Ω resistor to TP 1. Connect a frequency counter to the resistor via an AC voltmeter. | 98.0MHz | VR 3 | 76.00kHz | (c) |
| 6 | DISTORTION (STEREO) | (C) 98.0MHz 1kHz, ± 68.25 kHz dev Selector: L or R 60dB μ (ANT input) | (B) | 98.0MHz | L8 (Front end) | Minimum distortion. (L or R) | |
| 7 | SEPARATION | (C) 98.0MHz 1kHz, ± 68.25 kHz dev Selector: L or R Pilot: ± 6.75 kHz dev 60dB μ (ANT input) | (B) | 98.0MHz | VR4 | Minimum crosstalk. A compromise adjustment may be required if left-to-right and right-to-left separations are unequal. | |
| 8 | TUNING LEVEL | (A) 98.0MHz 0 dev 18dB μ (ANT input) | — | 98.0MHz | VR1 | Adjust VR1 so that FL1(TUNED) goes off. Then, adjust VR1 and stop at the point where FL1(TUNED) goes on. | |
| AM SECTION Keep the AM loop antenna installed. SELECTOR: AM | | | | | | | |
| (1) | BAND EDGE (1) | — | Connect a DC voltmeter between TP 6 (VT) and TP 5 (GND). | 530kHz (531kHz) | L11 | 1.5V | (a) |
| (2) | BAND EDGE (2) | — | Connect a DC voltmeter between TP 6 (VT) and TP 5 (GND). | 1610kHz (1602kHz) | TC 3 | 8.0V | (a) |
| Repeat alignments (1) and (2) several times. | | | | | | | |
| (3) | RF ALIGNMENT (1) | (D) 630kHz 400Hz, 30% mod | (B) | 630kHz | L10 | Maximum amplitude and symmetry of the oscilloscope display. | |
| (4) | RF ALIGNMENT (2) | (D) 1440kHz 400Hz, 30% mod | (B) | 1440kHz | TC2 | Maximum amplitude and symmetry of the oscilloscope display. | |
| Repeat alignments (3) and (4) several times. | | | | | | | |
| (5) | TUNING LEVEL | (A) 1000(999)kHz 0 dev 26dB μ (ANT input) | — | 1000(999)kHz | VR 2 | Adjust VR 2 so that FL1(TUNED) goes off. Then, adjust VR4 and stop at the point where FL1(TUNED) goes on. | |
| (6) | IF TRANSFORMER | (D) 1000kHz 20dB μ (ANT input) | (B) | — | L13 (X14) | Maximum amplitude and symmetry of the oscilloscope display. | |

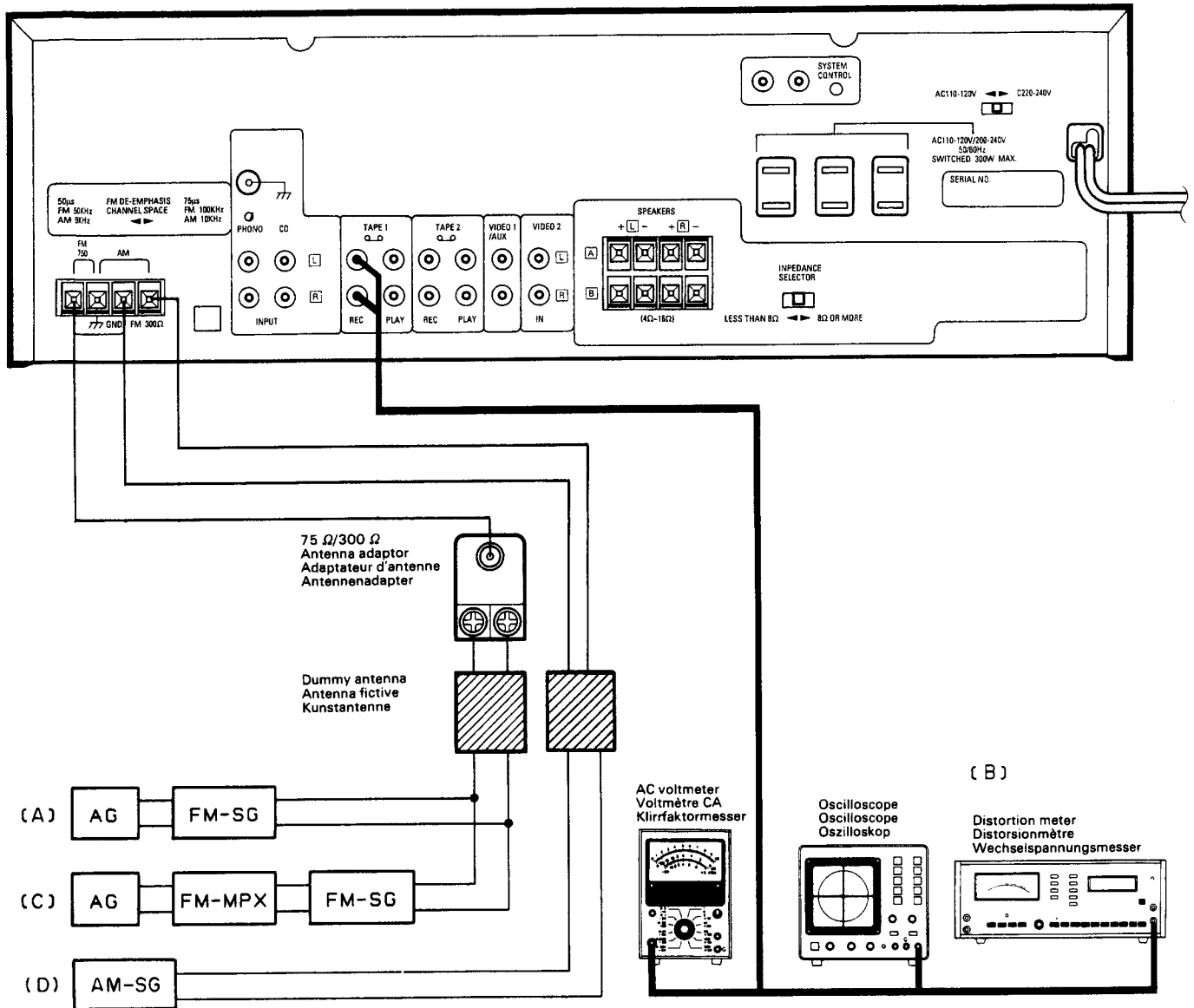
REGLAGES

| N° | ITEM | REGLAGE DE L'ENTREE | REGLAGE DE LA SORTIE | REGLAGE DU TUNER | POINT DE L'ALIGNEMENT | ALIGNER POUR | FIG. |
|--|---------------------|--|--|-------------------|-----------------------|---|------|
| SECTION MF | | | | | | | |
| Sauf en cas d'indications spéciales, régler chaque commutateur comme suit: SELECTEUR: FM MODE: FM MODE/AUTO | | | | | | | |
| 1 | BORD DE BANDE (1) | — | Relier un voltmètre CC entre les TP 6 (VT) et TP 5 (GND). | 87,5MHz | L7 (Contrôle) | 2,5V | (a) |
| 2 | BORD DE BANDE (2) | — | Relier un voltmètre CC entre les TP 6 (VT) et TP 5 (GND). | 108,0MHz | TC1 (Contrôle) | 8,0V | (a) |
| Répéter les points 1 et 2 plusieurs fois. | | | | | | | |
| 3 | ALIGNEMENT HT | (A) 98,0MHz 1kHz.±75kHz dév | (B) | MONO 98,0MHz | L 2-4 (Contrôle) | Amplitude et symétrie maximale de l'affichage de l'oscilloscope. | |
| 4 | DISCRIMINATEUR | (A) 98,0MHz 1kHz.±75kHz dév 60dBμ(Entrée ANT) | Relier un voltmètre CC entre les TP 3 et TP 4 | MONO 98,0MHz | L 14 | 0V | (b) |
| 5 | VCO | (A) 98,0MHz 0 dév 60dBμ(Entrée ANT) | Relier une résistance de 330kΩ à TP1 Raccorder un compteur de fréquence à une résistance par l'intermédiaire d'un voltmètre CA. | 98,0MHz | VR 3 | 76,00kHz | (c) |
| 6 | DISTORSION (STEREO) | (C) 98,0MHz 1kHz.±68,25kHz dév Selection:L ou R 60dBμ(Entrée ANT) | (B) | 98,0MHz | LS (Contrôle) | Distorsion minimale. (L ou R) | |
| 7 | SEPARATION | (C) 98,0MHz 1kHz.±68,25kHz dév Selection:L ou R Signal pilote: ±6,75kHz dév 60dBμ(Entrée ANT) | (B) | 98,0MHz | VR 4 | Diaphonie minimale. Un compromis de réglage peut être nécessaire si les séparation de gauche à droite et droite à gauche sont inégales. | |
| 8 | NIVEAU D' ACCORDER | (A) 98,0MHz 0 dév 18dBμ(Entrée ANT) | — | 98,0MHz | VR 1 | Ajuster VR1 que FL1(TUNED) est non allumé. Alors, ajuster VR1 et arrêter le mouvement de VR1 au moment où le FL1(TUNED)s'allume. | |
| SECTION MA | | | | | | | |
| Laisser l'antenne bouche MA installée. SELECTEUR: AM | | | | | | | |
| (1) | BORD DE BANDE (1) | — | Relier un voltmètre CC entre les TP 6 (VT) et TP 5 (GND). | 530kHz (531kHz) | L 11 | 1,5V | (a) |
| (2) | BORD DE BANDE (2) | — | Relier un voltmètre CC entre les TP 6 (VT) et TP 5 (GND). | 1610kHz (1602kHz) | TC 3 | 8,0V | (a) |
| Répéter les points (1) et (2) plusieurs fois. | | | | | | | |
| (3) | ALIGNEMENT HT (1) | (D) 630kHz 400Hz. 30% mod | (B) | 630kHz | L 10 | Amplitude et symétrie maximale de l'affichage de l'oscilloscope. | |
| (4) | ALIGNEMENT HT (2) | (D) 1440kHz 400Hz. 30% mod | (B) | 1440kHz | TC 2 | Amplitude et symétrie maximale de l'affichage de l'oscilloscope. | |
| Répéter les points (3) et (4) plusieurs fois. | | | | | | | |
| (5) | NIVEAU D' ACCORDER | (A) 1000(999)kHz 0 dév 26 dBμ(Entrée ANT) | — | 1000(999)kHz | VR 2 | Ajuster VR 2 que FL1(TUNED) est non allumé. Alors, ajuster VR4 et arrêter le mouvement de VR4 au moment où le FL1(TUNED)s'allume. | |
| (6) | TRANSFORMATEUR F.I. | (D) 1000KHz 200Bμ(Entrée ANT) | (B) | — | L13 (X14) | Amplitude et symétrie maximale de l'affichage de l'oscilloscope. | |

ABGLEICH

| NR. | GEGENSTAND | EINGANGS-EINSTELLUNG | AUSGANGS-EINSTELLUNG | TUNER-EINSTELLUNG | ABGLEICH-PUNKTE | ABGLEICHEN FÜR | ABB. |
|---|--------------------------------|---|--|-------------------|----------------------|---|------|
| UKW-EMPFANGSABTEILUNG Außer wenn anders angegeben, die verschiedenen Schalter wie folgt einstellen: SELECTOR: FM MODE:FM MODE/AUTO | | | | | | | |
| 1 | BANDKANTE (1) | — | Einen Gleichspannungsmesser zwischen TP 6 (VT) und TP 5 (GND) anschließen. | 87,5MHz | L7 (Eingangsstufe) | 2,5V | (a) |
| 2 | BANDKANTE (2) | — | Einen Gleichspannungsmesser zwischen TP 6 (VT) und TP 5 (GND) anschließen. | 108,0MHz | TC1 (Eingangsstufe) | 8,0V | (a) |
| Abstimmungen 1 und 2 mehrere Male wiederholen. | | | | | | | |
| 3 | EMPFANGS-BEREICH-ABSTIMMUNGEN | (A) 98,0MHz 1kHz.±75kHz Hub | (B) | MONO 98,0MHz | L2-4 (Eingangsstufe) | Maximal Amplitude und Symmetrie des Oszilloskopbildes. | |
| 4 | DISKRIMINATOR | (A) 98,0MHz 1kHz.±75kHz Hub 60dBμ(Ant-Eingang) | Einen Gleichspannungsmesser zwischen TP 3 und TP 4 anschließen. | MONO 98,0MHz | L14 | 0V | (b) |
| 5 | SPANNUNGS-GEREGELTER OZILLATOR | (A) 98,0MHz 0 Hub 60dBμ(Ant-Eingang) | Einen 330kΩ Widerstand zu TP1 anschließen. Einen Frequenzzähler über einen Wechselspannungsmesser an den Widerstand anschließen. | 98,0MHz | VR 3 | 76,00kHz | (c) |
| 6 | KLIRRFaktor (STEREO) | (C) 98,0MHz 1kHz.±68,25kHz Hub Wähler: L oder R 60dBμ(Ant-Eingang) | (B) | 98,0MHz | L8 (Eingangsstufe) | Minimal Klirrfaktor. (L oder R) | |
| 7 | STEREO KANAL TRENNUNG | (C) 98,0MHz 1kHz.±68,25kHz Hub Wähler:L oder R Pilotten: ±6,75kHz Hub 60dBμ(Ant-Eingang) | (B) | 98,0MHz | VR 4 | Minimales Übersprechen. Eine Ausgleichregelung kann notwendig sein, falls links-zu-rechts und rechts-zu-links. Trennungen ungleich sind. | |
| 8 | ABSTIMM PEGEL | (A) 98,0MHz 0 Hub 18dBμ(Ant-Eingang) | — | 98,0MHz | VR1 | Den Pegelwiderstand VR1 so einstellen, daß der FL1(TUNED)anzeiger nicht leuchtet. Dann der Pegelwiderstand aufdrehen, und den VR1 Halt geben wobei den FL1(TUNED) anzeiger leuchtet wird. | |
| MW-EMPFANGSABTEILUNG Die MW Rahmenantenne angebracht lassen. SELECTOR: AM | | | | | | | |
| (1) | BANDKANTE (1) | — | Einen Gleichspannungsmesser zwischen TP 6 (VT) und TP 5 (GND) anschließen. | 530kHz (531kHz) | L11 | 1,5V | (a) |
| (2) | BANDKANTE (2) | — | Einen Gleichspannungsmesser zwischen TP 6 (VT) und TP 5 (GND) anschließen. | 1610kHz (1602kHz) | TC 3 | 8,0V | (a) |
| Abstimmungen (1) und (2) mehrere Male wiederholen. | | | | | | | |
| (3) | HF-ABGLEICH (1) | (D) 630kHz 400Hz.30% mod | (B) | 630kHz | L10 | Maximal Amplitude und Symmetrie des Oszilloskopbildes. | |
| (4) | HF-ABGLEICH (2) | (D) 1440kHz 400Hz.30% mod | (B) | 1440kHz | TC2 | Maximal Amplitude und Symmetrie des Oszilloskopbildes. | |
| Abstimmungen (3) und (4) mehrere Male wiederholen. | | | | | | | |
| (5) | ABSTIMM PEGEL | (A) 1000(999)kHz 0 Hub 26 dBμ(Ant-Eingang) | — | 1000(999)kHz | VR 2 | Den Pegelwiderstand VR2 so einstellen, daß der FL1(TUNED)anzeiger nicht leuchtet. Dann der Pegelwiderstand aufdrehen, und den VR4 Halt geben wobei den FL1(TUNED) anzeiger leuchtet wird. | |
| (6) | ZF-ÜBERTRAGER | (D) 1000kHz 20dBμ(Ant-Eingang) | (B) | — | L13 (X14) | Maximal Amplitude und Symmetrie des Oszilloskopbildes. | |

ADJUSTMENT/REGLAGE/ABGIEICH



VOLTAGE TABLE

X13-619X-XX

IC1

| | |
|----|--------|
| 4 | 11.9V |
| 11 | -12.4V |

IC2

| | |
|----|--------|
| 4 | 11.9V |
| 11 | -12.4V |

IC3

| | |
|----|--------|
| 4 | 11.9V |
| 11 | -12.4V |

IC4

| | |
|---|------|
| 1 | 5.6V |
| 2 | 0V |
| 3 | 5.6V |

IC5

| | |
|----|------|
| 32 | 0V |
| 57 | -30V |
| 58 | 5V |
| 64 | 5V |

IC6

| | |
|----|----------|
| 1 | 0V |
| 2 | UP5V |
| 5 | UP3.2V |
| 6 | DOWN3.2V |
| 10 | DOWN5V |

IC9

| | |
|---|--------|
| 4 | -12.4V |
| 8 | 11.4V |

| | B | C | E |
|-----|--------|--------|--------|
| Q1 | 0V | 4.8V | - |
| Q2 | -24.6V | 4.9V | -24.7V |
| Q4 | 0.6V | 9.8V | 0.2V |
| Q5 | 2.1V | 0.2V | 0V |
| Q6 | 45.6V | -28.4V | 5.6V |
| Q11 | 6.2V | 12.7V | 5.7V |
| Q12 | -30.6V | -48V | - |
| Q13 | 0V | 0.3V | 0V |

X14-253X-XX

IC1

| | |
|----|------|
| 1 | 2.4V |
| 2 | 2.4V |
| 3 | 2.4V |
| 4 | 0V |
| 5 | 9.9V |
| 6 | 9.9V |
| 7 | 9.9V |
| 8 | 4.2V |
| 9 | 3.8V |
| 10 | 3.3V |
| 11 | 1.4V |
| 12 | 1.5V |
| 13 | 0V |
| 14 | 0V |
| 15 | 2.4V |
| 16 | 1.4V |
| 17 | 0V |
| 18 | 0V |
| 19 | 0V |
| 20 | 3.9V |
| 21 | 3.9V |
| 22 | 2.8V |

IC2

| | |
|----|------|
| 1 | 2.4V |
| 2 | 0V |
| 3 | 0V |
| 4 | 0V |
| 5 | 2V |
| 6 | 2.4V |
| 7 | 1.2V |
| 8 | 3.7V |
| 9 | 0V |
| 11 | 2.3V |
| 12 | 5.1V |
| 13 | 4.5V |
| 14 | 0V |

IC3

| | |
|----|-------|
| 1 | 11.3V |
| 2 | 2.5V |
| 3 | 6V |
| 4 | 9.2V |
| 5 | 9.2V |
| 6 | 3.8V |
| 7 | 3.6V |
| 9 | 11.2V |
| 10 | 2.6V |
| 11 | 2.6V |
| 12 | 2.6V |
| 13 | 2.6V |
| 14 | 2.6V |
| 15 | 4.4V |
| 16 | 4.1V |

IC4

| | |
|---|--------|
| 4 | 11.9V |
| 8 | -12.4V |

IC5

| | |
|----|--------|
| 10 | -12.4V |
| 11 | 5.5V |
| 14 | 0V |
| 15 | 6.8V |
| 16 | 6.8V |
| 17 | 6.8V |
| 18 | 6.8V |

IC6

| | |
|----|--------|
| 1 | 0V |
| 2 | 0V |
| 8 | -12.4V |
| 16 | 11.9V |

IC7

| | |
|----|--------|
| 1 | 48.2V |
| 2 | 0V |
| 3 | -0.3V |
| 4 | -0.3V |
| 5 | 0V |
| 6 | 0V |
| 7 | -1.3V |
| 8 | 46.5V |
| 9 | -40.6V |
| 10 | -45.4V |
| 11 | -50.5V |
| 12 | 0V |
| 13 | 50.5V |
| 14 | 49.7V |
| 15 | 0V |
| 16 | -50.5V |
| 17 | -1.3V |
| 18 | 0V |
| 19 | -0.3V |
| 20 | 0.3V |
| 21 | 1.2V |
| 22 | 48.2V |

IC8

| | |
|---|-------|
| O | 11.9V |
| I | 21.8V |
| G | - |

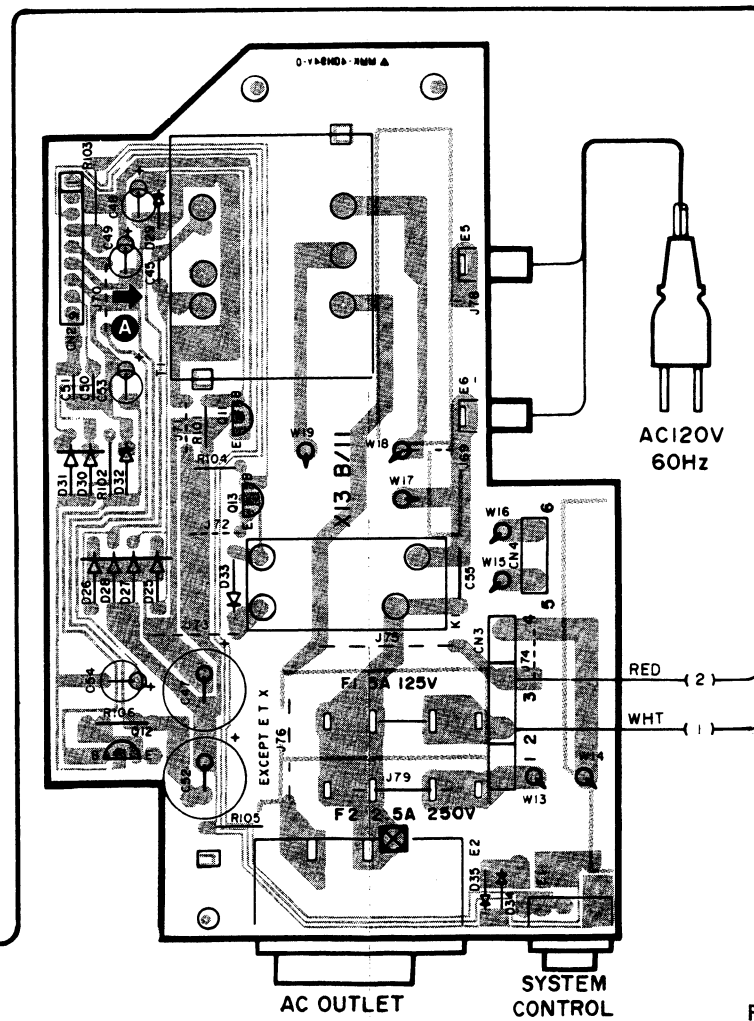
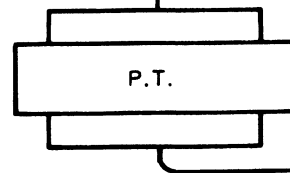
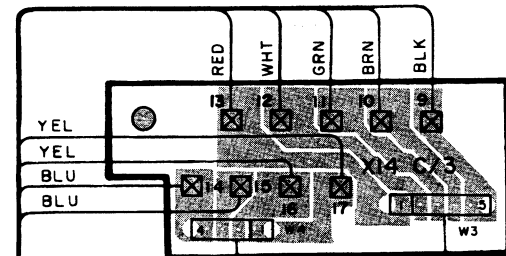
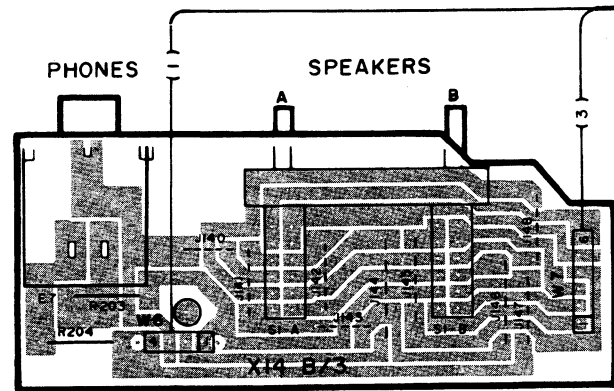
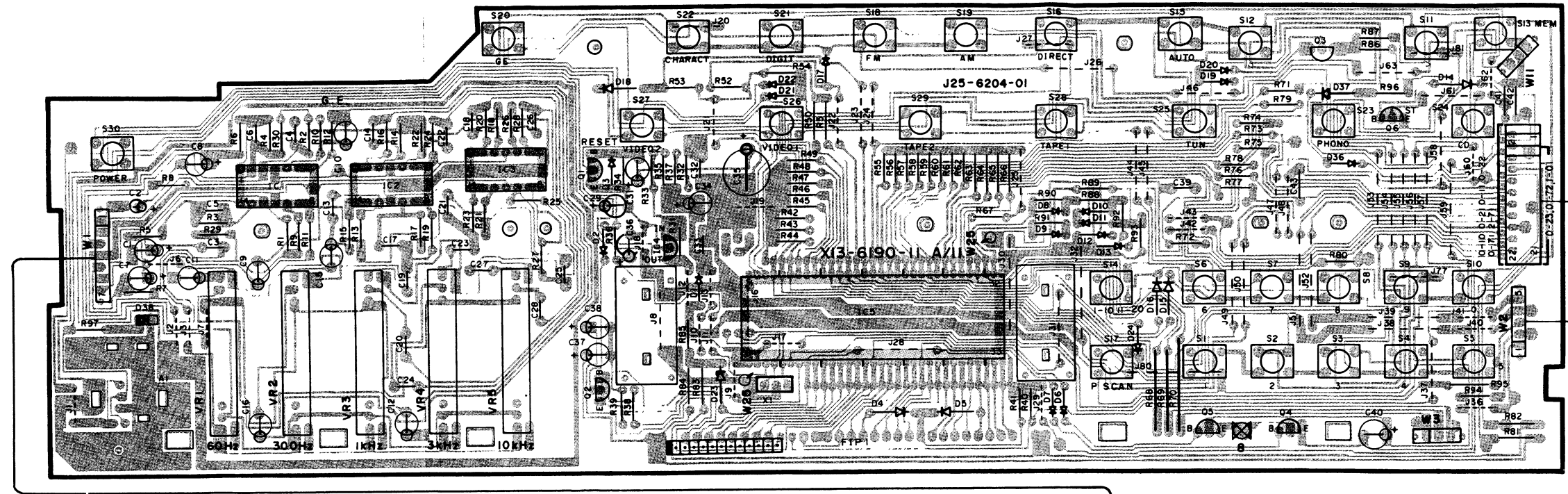
| | B | C | E |
|-----|------------|------------|------------|
| Q2 | 0V | 9.7V | - |
| Q3 | 4.5V | 9.5V | 3.8V |
| Q4 | 0.6V | - | - |
| Q6 | 2.6V | 9.3V | 1.8V |
| Q7 | 1.2V | 2.5V | 0.6V |
| Q8 | 0.6V | 2.5V | - |
| Q10 | 50μ : 0.2V | 50μ : 0.3V | 50μ : 0.3V |
| | 75μ : 0.6V | 75μ : 0V | 75μ : 0V |
| Q11 | 50μ : 0.2V | 50μ : 0V | 50μ : 0V |
| | 75μ : 0.6V | 75μ : 0V | 75μ : 0V |
| Q12 | 3.7V | 0V | - |
| Q13 | 0V | 11.8V | 11.9V |
| Q14 | 0V | 11.9V | - |
| Q15 | 11.9V | 0.07V | 11.9V |
| Q17 | -12.2V | 0V | 0V |
| Q18 | -12.2V | 0V | 0V |
| Q19 | 4.9V | - | 3.6V |
| Q20 | - | 0V | -0.4V |
| Q21 | 0V | 0V | -0.4V |
| Q22 | 4.9V | -0.4V | 3.6V |
| Q25 | 0V | -23V | -7.0V |
| Q26 | - | 8V | -48.7V |
| Q27 | - | 8V | -48.7 |
| Q29 | -6V | -13V | 0V |
| Q30 | -13V | -42.4V | -12.4V |
| Q31 | -42.4V | -12.4V | -43V |

| | G | D | S |
|----|------|------|---|
| Q1 | - | 9.7V | - |
| Q5 | 5.8V | - | - |



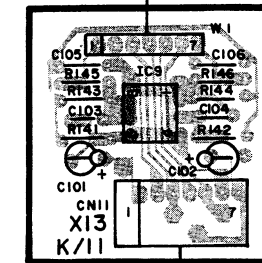
PC BOARD (FOIL SIDE VIEW)

FRONT

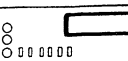


AC120V
60Hz

RED (2)
WHT (1)



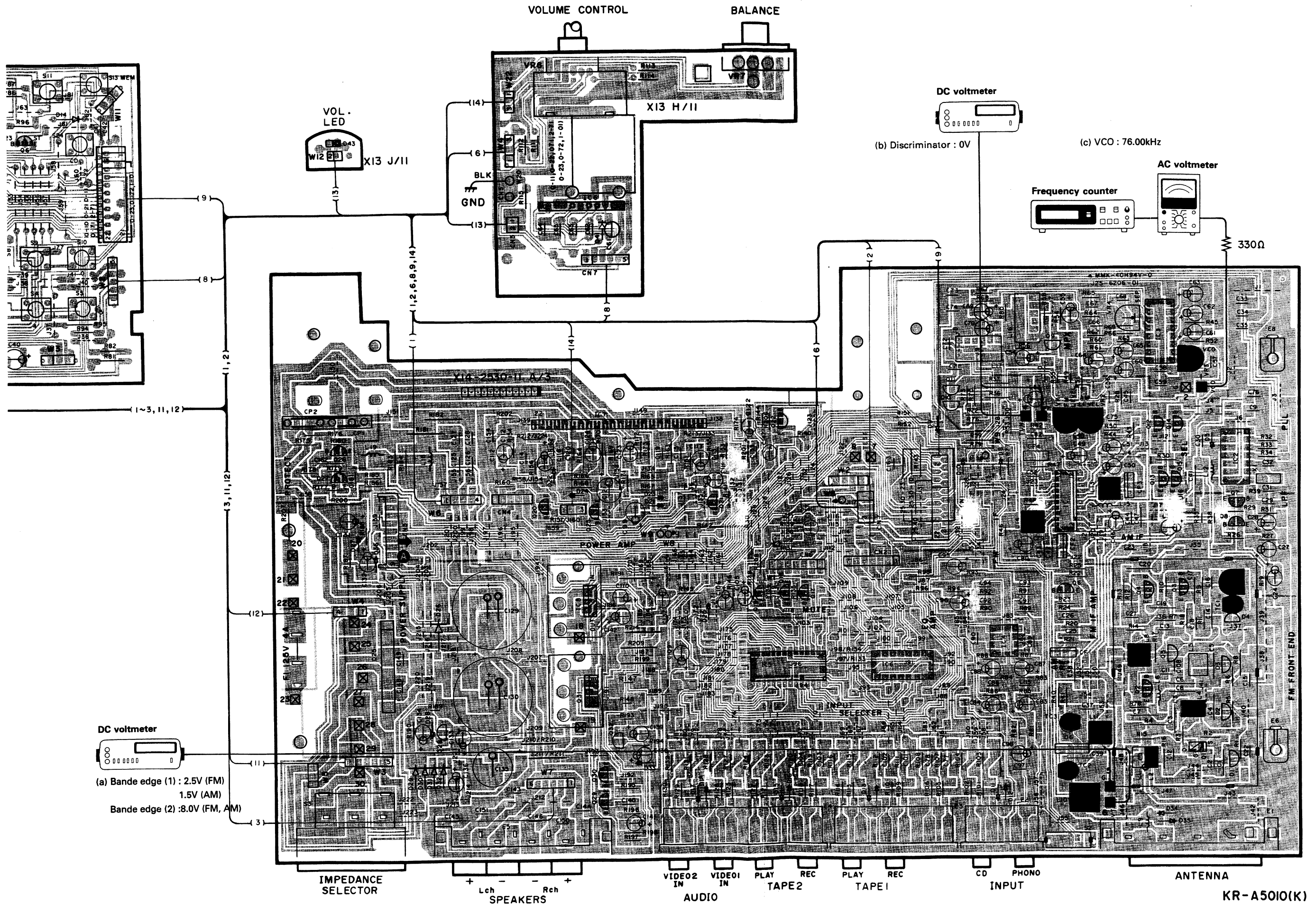
DC voltmeter

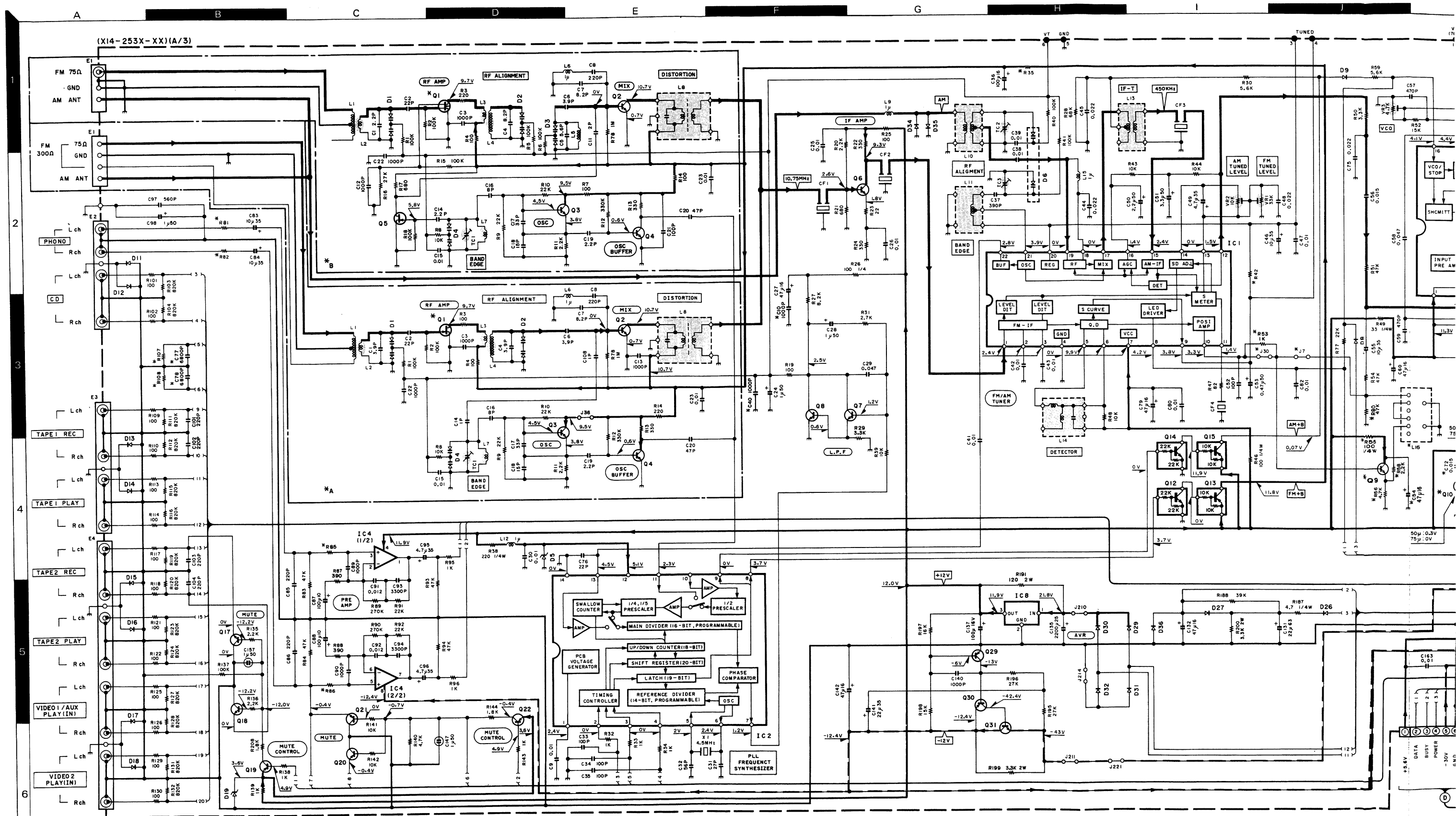


(a) Bande edge (1)

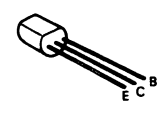
Bande edge (2)

Refer to the schematic diagram for the values of resistors and capacitors.





2SA733(A)
2SA992
2SC1845
2SC1923
2SC2003
2SC2878
2SC945(A)



3SK73

2SK161
2SK241

DTC124ES

DTA114ES
2SC1740S

UPC7812HF

2SD1266

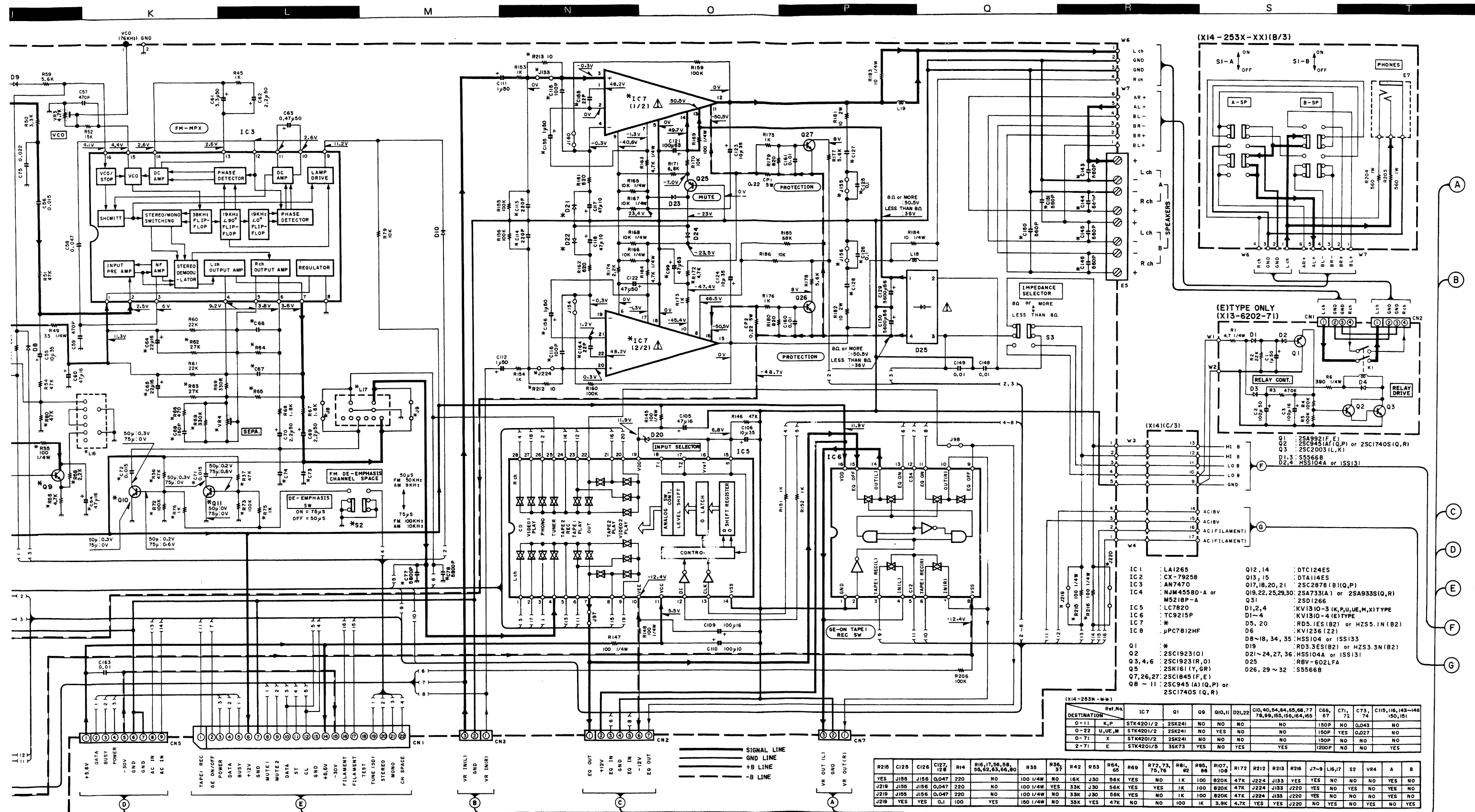
M5218P-A

NJM4558D-A

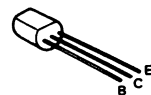
AN7470
TC9215P

CX-7925B

LA1265



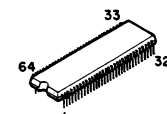
DTA124EN



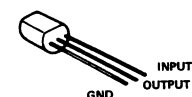
2SB772



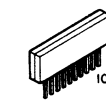
CXP5016-330S



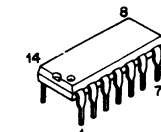
PST529C



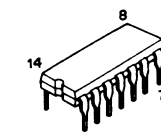
LB1641



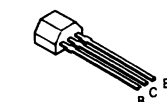
NJM2058D



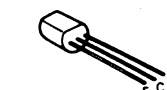
AN6554



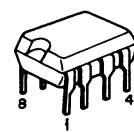
2SC1740S



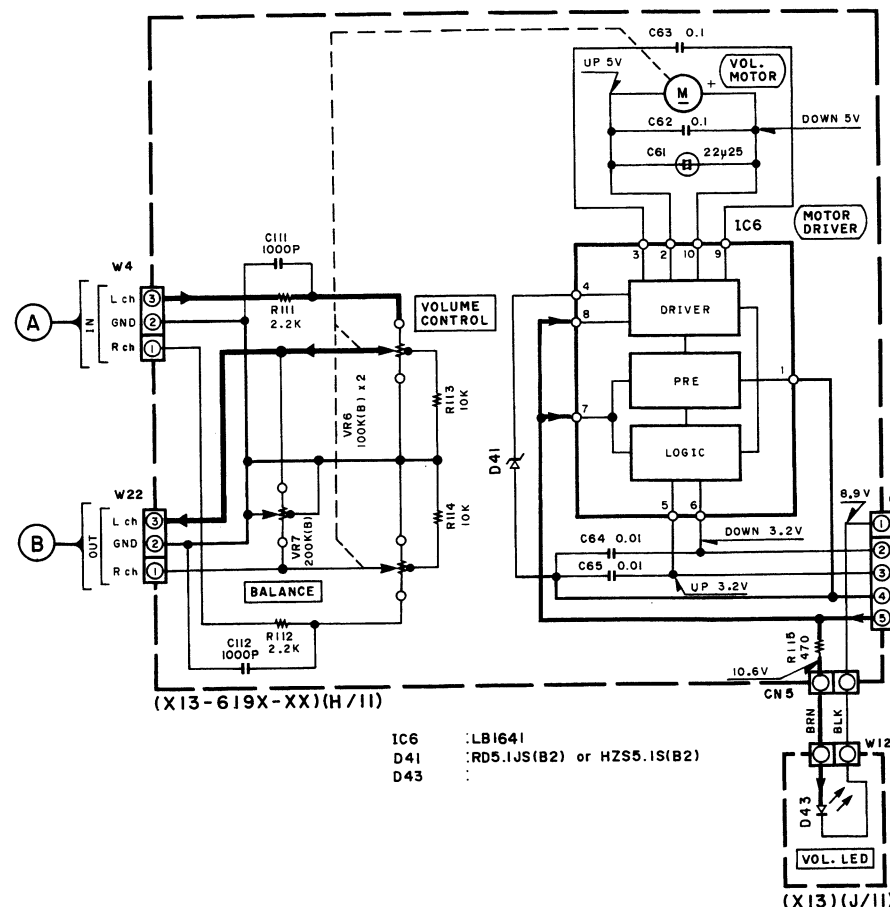
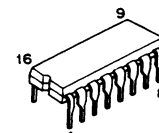
DTC124EN
2SA733(A)
2SC2003
2SC945(A)
2SC2320



M5218P

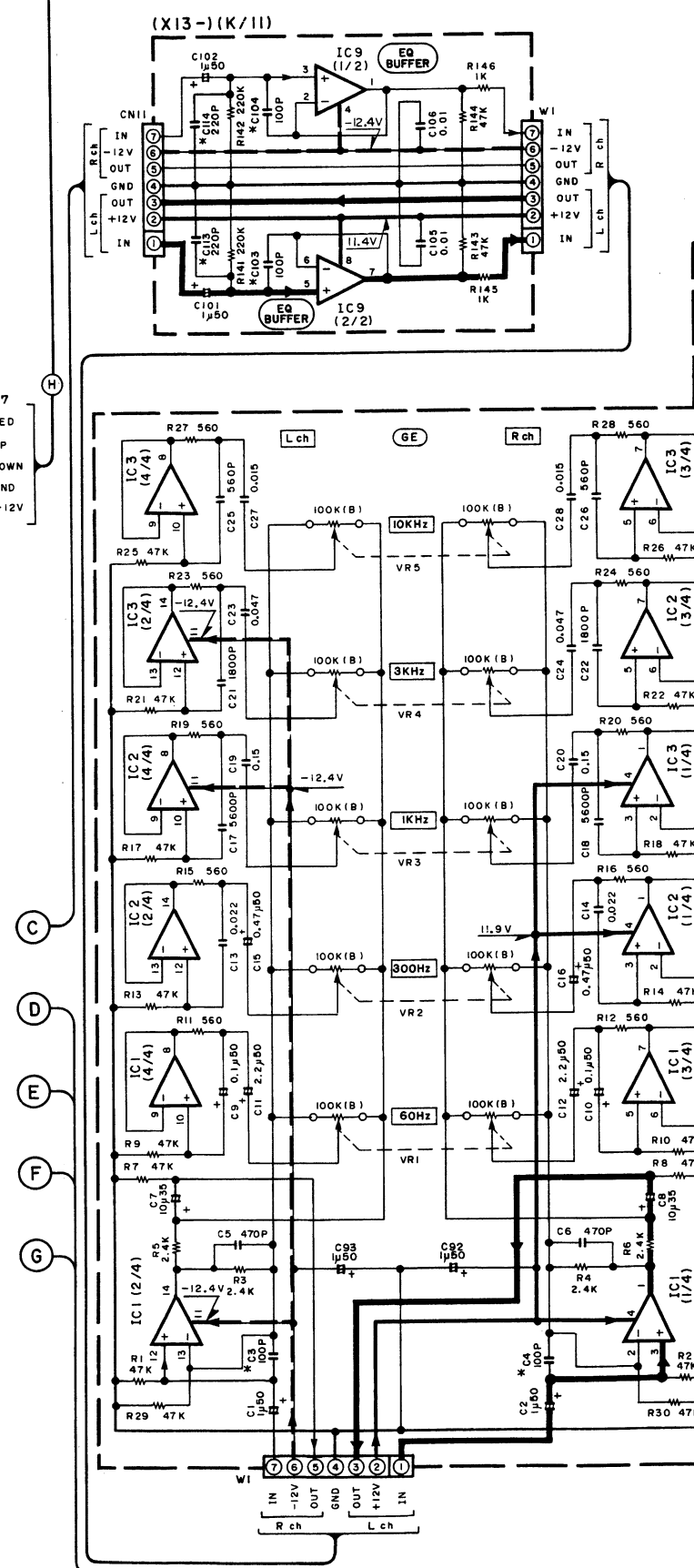


UPC4574C



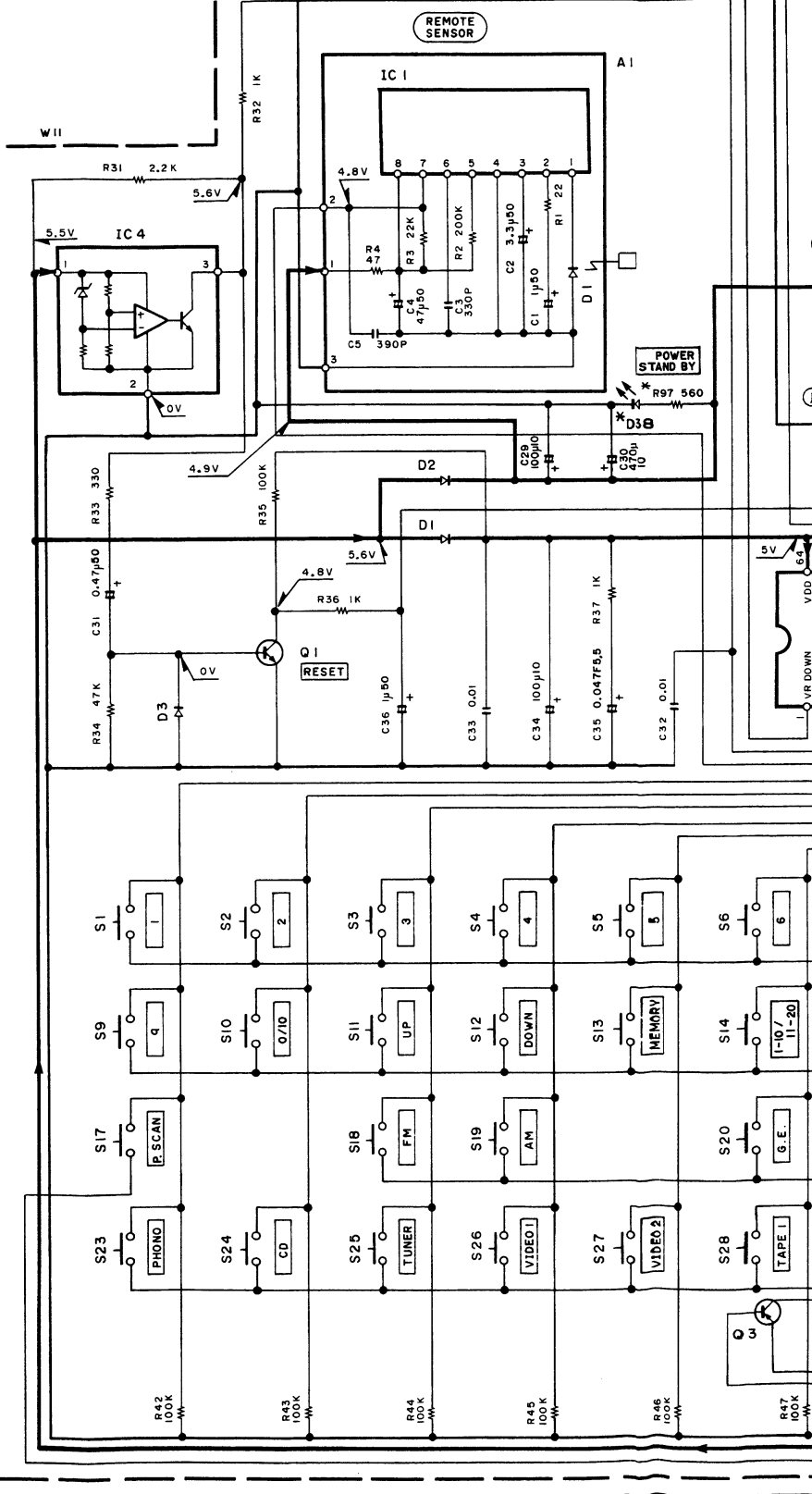
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

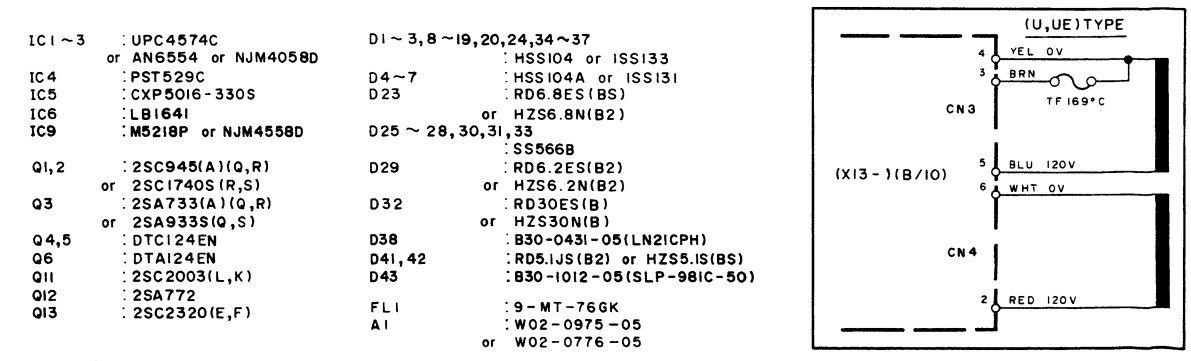
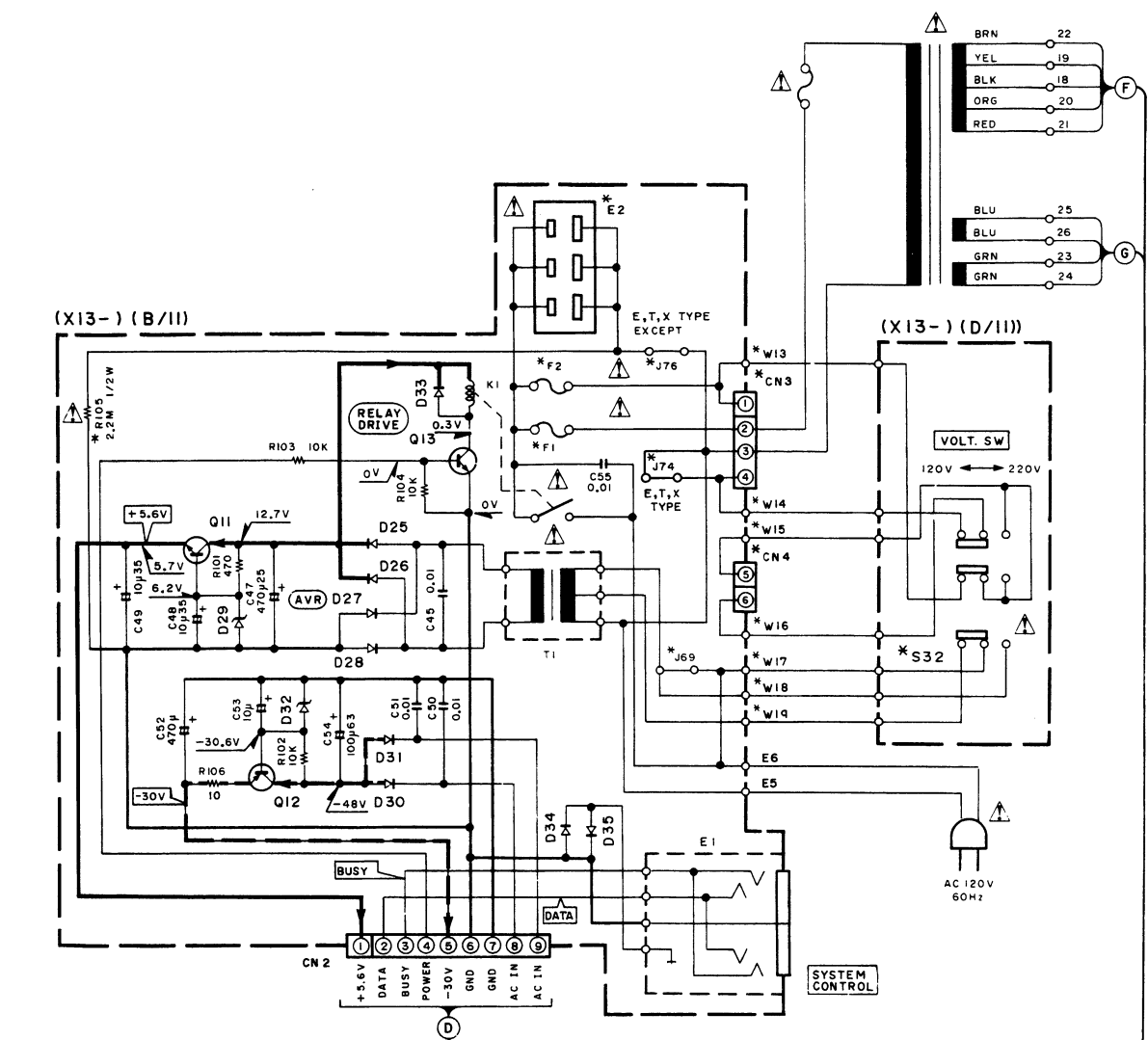
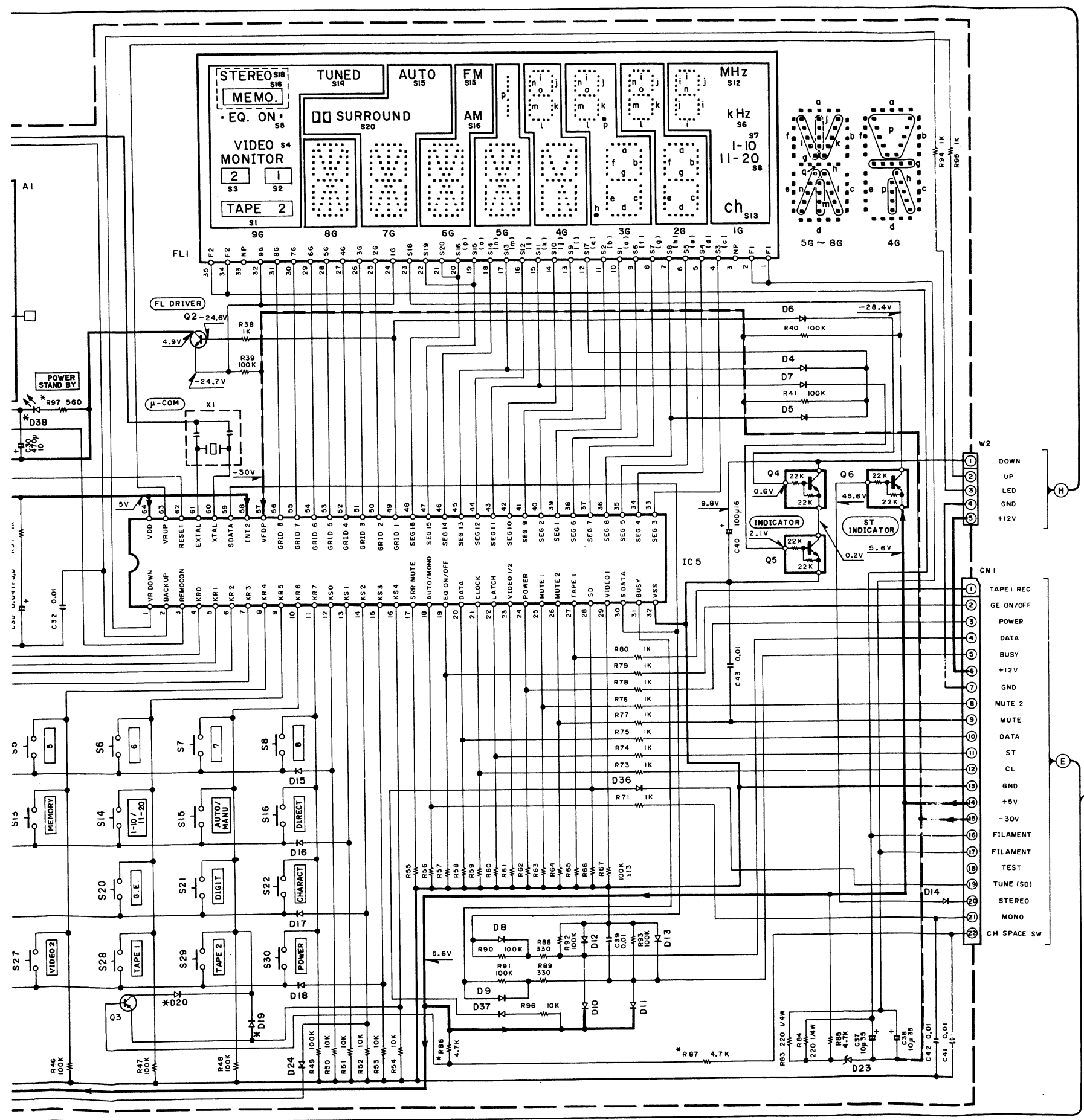
- DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.
- Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
- Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Voltmeter ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.



SIGNAL LINE
GND LINE
+B LINE
-B LINE

(X13-619X-XX)(A/II)

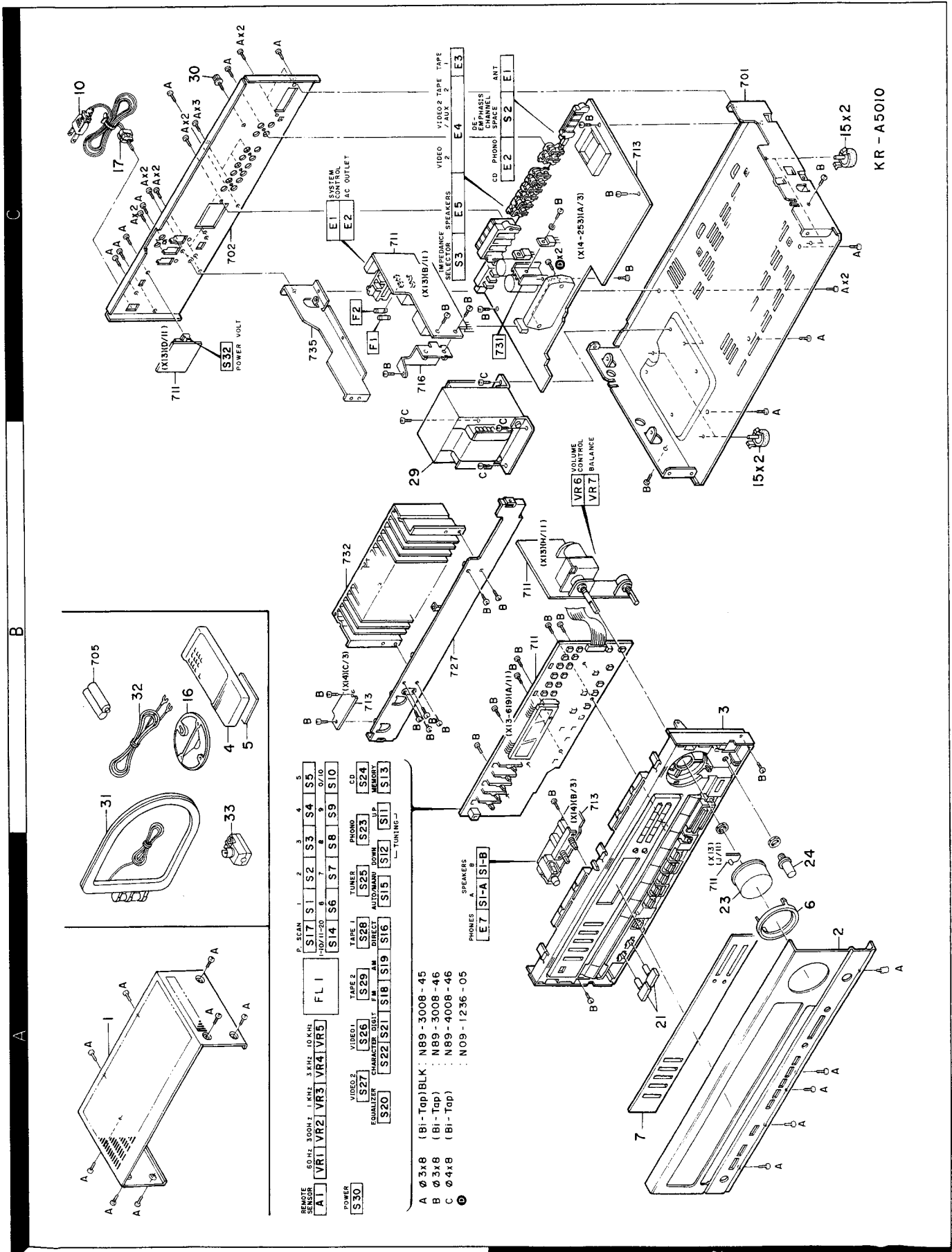




(X13-619X-XX)

| DESTINATION | Ref. No. | C3,4 | C3,11,4 | C3,11,4 | CN3 | CN4 | D19 | D20 | D38 | E2 | F1 | F2 | J62 | J69 | J76 | J74,79 | R86,87 | R97 | R105 | S32 | W13-19 |
|-------------|----------|------|---------|---------|-----|-----|-----|-----|-----|-----|----------|----------|-----|-----|-----|--------|--------|-----|------|-----|--------|
| 0-11 | K,P | NO | NO | 2P | NO | NO | NO | NO | NO | YES | 5A125V | NO | NO | YES | YES | NO | NO | NO | YES | NO | NO |
| 0-22 | U,UE,M | NO | NO | 4P | YES | NO | YES | NO | YES | YES | 2.5A250V | 2.5A250V | YES | NO | NO | YES | YES | NO | NO | YES | YES |
| 0-71 | X | NO | NO | 2P | NO | NO | YES | NO | YES | NO | T2.5A | NO | NO | YES | YES | YES | NO | YES | NO | NO | NO |
| 2-71 | E | YES | YES | 2P | NO | YES | NO | YES | NO | NO | T2.5A | T2.5A | NO | YES | YES | YES | NO | YES | NO | NO | NO |

EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

KR-A5010

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕 向 | Re- marks 備考 |
|------------------|---------------|-------------------|-------------------|--------------------------------|-------------------------|--------------------|
| KR-A5010 | | | | | | |
| 1 | 1A | | A01-1746-01 | METALLIC CABINET | | |
| 2 | 2A | * | A20-5773-12 | PANEL | KPUUEM | |
| 2 | 2A | * | A20-5773-12 | PANEL | X | |
| 2 | 2A | | A20-5803-12 | PANEL | E | |
| 3 | 2B | | A22-1084-01 | SUB PANEL | | |
| 4 | 2D | | A70-0264-05 | REMOTE CONTROLLER ASSY(RC6010) | | |
| 5 | 1B | | A09-0087-08 | BATTERY CASE | | |
| 6 | 2A | | B07-1889-04 | ESCUTCHEON | | |
| 7 | 2A | | B10-1004-03 | FRONT GLASS | KPUUEM | |
| 7 | 2A | * | B10-1005-03 | FRONT GLASS | XE | |
| - | | | B46-0092-03 | WARRANTY CARD | K | |
| - | | | B46-0094-03 | WARRANTY CARD | UUE | |
| - | | | B46-0095-03 | WARRANTY CARD | UUE | |
| - | | | B46-0096-13 | WARRANTY CARD | X | |
| - | | | B46-0121-03 | WARRANTY CARD | P | |
| - | | | B46-0122-13 | WARRANTY CARD | E | |
| - | | | B50-9486-00 | INSTRUCTION MANUAL(ENG) | KPUUEM | |
| - | | | B50-9486-00 | INSTRUCTION MANUAL(ENG) | X | |
| - | | * | B50-9487-10 | INSTRUCTION MANUAL(FRE) | PME | |
| - | | | B50-9488-00 | INSTRUCTION MANUAL(G/D/I) | E | |
| - | | * | B50-9489-10 | INSTRUCTION MANUAL(SPANISH) | M | |
| - | | | B58-0223-04 | CAUTION CARD (PRE-SET 120V) | U | |
| - | | | B58-0513-04 | CAUTION CARD (PRESET220-240) | UE | |
| - | | | B58-0803-13 | CAUTION CARD | E | |
| △ 10 | 1C | | E30-0459-05 | AC POWER CORD | E | |
| △ 10 | 1C | | E30-0812-05 | AC POWER CORD | UUEM | |
| △ 10 | 1C | | E30-1341-05 | AC POWER CORD | X | |
| △ 10 | 1C | | E30-2209-05 | AC POWER CORD | KP | |
| - | | | E30-0977-05 | CORD WITH PLUG(SYNCHRO) | E | |
| - | | | E30-1392-05 | CORD WITH PLUG(SYNCHRO)X2 | E | |
| △ E2 | 1C | | E03-0055-05 | AC OUTLET | E | |
| - | | | H01-8449-04 | ITEM CARTON CASE | | |
| - | | | H10-3798-02 | POLYSTYRENE FOAMED FIXTURE | | |
| - | | | H10-3799-02 | POLYSTYRENE FOAMED FIXTURE | | |
| - | | | H25-0181-04 | PROTECTION BAG (150X260X0.05) | | |
| - | | | H25-0223-04 | PROTECTION BAG (750X350X0.03) | | |
| - | | | H25-0232-04 | PROTECTION BAG (235X350X0.03) | | |
| 15 | 2B, 2C | | J02-1013-05 | FOOT | KPUUEM | |
| 15 | 2B, 2C | | J02-1013-05 | FOOT | X | |
| 15 | 2B, 2C | | J02-1034-05 | FOOT | E | |
| 16 | 1B | | J19-2815-04 | ANTENNA HOLDER | | |
| △ 17 | 1C | | J42-0083-05 | POWER CORD BUSHING | | |
| - | | | J61-0307-05 | WIRE BAND | | |
| 21 | 2A | | K27-1987-04 | KNOB (BUTTON) SPEAKERS | | |
| 23 | 2A | | K29-3581-04 | KNOB ASSY (VOLUME) | | |
| 24 | 2A | | K29-3632-04 | KNOB (BALANCE) | | |
| △ 29 | 1B | | L01-6001-05 | POWER TRANSFORMER | K | |
| △ 29 | 1B | | L01-6002-05 | POWER TRANSFORMER | E | |
| △ 29 | 1B | | L01-6005-05 | POWER TRANSFORMER | UUEM | |
| △ 29 | 1B | | L01-6007-05 | POWER TRANSFORMER | P | |

E: Scandinavia & Europe K: USA P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

UE: AAFES(Europe) X: Australia

△ indicates safety critical components.

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|--|---------------|-------------------|-------------------|----------------------------|------------------------|--------------------|
| 29 | 1B | | L01-6008-05 | POWER TRANSFORMER | X | |
| 30 | 1C | | N08-0128-35 | BINDING POST (GND) | | |
| A | | | N89-3008-45 | BINDING HEAD TAPTITE SCREW | | |
| B | | | N89-3008-46 | BINDING HEAD TAPTITE SCREW | | |
| C | | | N89-4008-46 | BINDING HEAD TAPTITE SCREW | | |
| 31 | 1D | | T90-0174-05 | LOOP ANTENNA | | |
| 32 | 1E | | T90-0175-05 | T TYPE ANTENNA | | |
| 33 | 1B | | T90-0177-05 | ANTENNA ADAPTOR | E | |
| SUB UNIT (X13-619X-XX) 0-11 : K, P 0-22 : U, UE, M 0-71 : X 2-71 : E | | | | | | |
| D38 | | | B30-0431-05 | LED(LN21CPH) | XE | |
| D43 | | | B30-1012-05 | LED(SLP-981C-50) | | |
| C1 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C2 | | | CE04JW1H010M | ELECTRO 1.0UF 50WV | | |
| C3 ,4 | | | CC45FSL1H101J | CERAMIC 100PF J | E | |
| C5 ,6 | | | CK45FB1H471K | CERAMIC 470PF K | | |
| C7 ,8 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C9 ,10 | | * | CE04LW1HR10M | ELECTRO 0.10UF 50WV | | |
| C11 ,12 | | | CE04LW1H2R2M | ELECTRO 2.2UF 50WV | | |
| C13 ,14 | | | CF92FV1H223J | MF 0.022UF J | | |
| C15 ,16 | | | CE04LW1HR47M | ELECTRO 0.47UF 50WV | | |
| C17 ,18 | | | CF92FV1H562J | MF 5600PF J | | |
| C19 ,20 | | | CF92FV1H154J | MF 0.15UF J | | |
| C21 ,22 | | | CF92FV1H182J | MF 1800PF J | | |
| C23 ,24 | | | CF92FV1H473J | MF 0.047UF J | | |
| C25 ,26 | | | CK45FB1H561K | CERAMIC 560PF K | | |
| C27 ,28 | | | CF92FV1H153J | MF 0.015UF J | | |
| C29 | | * | CE04JW1A101M | ELECTRO 100UF 10WV | | |
| C30 | | | CE04LW1A471M | ELECTRO 470UF 10WV | | |
| C31 | | | CE04LW1HR47M | ELECTRO 0.47UF 50WV | | |
| C32 ,33 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C34 | | | CE04LW1A101M | ELECTRO 100UF 10WV | | |
| C35 | | | C91-0937-05 | BACKUP 0.047F 5.5WV | | |
| C36 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C37 ,38 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C39 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C40 | | | CE04LW1C101M | ELECTRO 100UF 16WV | | |
| C41 -43 | | | C91-0769-05 | CERAMIC 0.01UF M | | |
| C45 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C47 | | | CE04LW1E471M | ELECTRO 470UF 25WV | | |
| C48 ,49 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C50 ,51 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C52 | | | CE04LW1H471M | ELECTRO 470UF 50WV | | |
| C53 | | | CE04LW1H100M | ELECTRO 10UF 50WV | | |
| C54 | | | CE04LW1J101M | ELECTRO 100UF 63WV | | |
| C55 | | | C91-0023-05 | CERAMIC 0.01UF AC250V | UEM | |
| C55 | | | C91-0647-05 | CERAMIC 0.01UF P | KPXE | |
| C61 | | | C90-1353-05 | NP-ELEC 10UF 25WV | | |
| C62 ,63 | | | CF92FV1H104J | MF 0.10UF J | | |
| C64 ,65 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C92 ,93 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C101,102 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C103,104 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C105,106 | | | C91-0769-05 | CERAMIC 0.01UF M | E | |

E: Scandinavia & Europe K: USA P: Canada
 U: PX(Far East, Hawaii) T: England M: Other Areas
 UE: AAFES(Europe) X: Australia

△ indicates safety critical components.

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|----------------------------------|---------------|-------------------|--|---------------------------------------|------------------------|--------------------|
| C107,108 C111,112 C113,114 | | | CK45FF1H103Z CK45FB1H102K CC445FSL1H221J | CERAMIC 0.010UF Z CERAMIC 1000PF K | E | |
| E1 | 1C | | E11-0188-05 | MINIATURE PHONE JACK (SYSTEM) | | |
| △ E2 | 1C | * | E03-0107-05 | AC OUTLET | KPUUEM | |
| △ F1 | 1C | | F04-5022-05 | FUSE (UL) (125V 5A) | KP | |
| △ F1 | 1C | | F05-2525-05 | FUSE (SEMKO) (250V T2.5A) | X | |
| △ F1 ,2 | 1C | | F05-2525-05 | FUSE (SEMKO) (250V T2.5A) | E | |
| △ F1 ,2 | 1C | | F06-2526-05 | FUSE (250V 2.5A) | UUEM | |
| - | | | J13-0054-05 | FUSE CLIP | | |
| △ T1 | | | L01-7651-05 | POWER TRANSFORMER | KP | |
| △ T1 | | | L01-7652-05 | POWER TRANSFORMER | E | |
| △ T1 | | | L01-7653-05 | POWER TRANSFORMER | UUEM | |
| △ T1 | | | L01-7657-05 | POWER TRANSFORMER | X | |
| X1 | | | L78-0209-05 | RESONATOR (4.194MHZ) | | |
| R105 | | | R92-0173-05 | RC 2.2M M 1/2W | KP | |
| R106 | | | RD14NB2E100J | RD 10 J 1/4W | | |
| VR1 -5 | 1A | * | R13-5087-05 | POTENTIOMETER (EQ) | | |
| VR6 | 2B | | R29-5022-05 | POTENTIOMETER VOLUME | | |
| VR7 | 2B | * | R01-5066-05 | POTENTIOMETER BALANCE | | |
| K1 | | | S51-1052-05 | MAGNETIC RELAY | | |
| S1 -30 | 1A | | S40-1064-05 | PUSH SWITCH (SELECTOR) | | |
| △ S32 | 1C | | S31-3010-05 | SLIDE SWITCH (POWER VOLTAGE) | UUEM | |
| D1 -3 | | | HSS104 | DIODE | | |
| D1 -3 | | | 1SS133 | DIODE | | |
| D4 -7 | | | HSS104A | DIODE | | |
| D4 -7 | | | 1SS131 | DIODE | | |
| D8 -18 | | | HSS104 | DIODE | KPUUEM | |
| D8 -18 | | | 1SS133 | DIODE | KPUUEM | |
| D8 -19 | | | HSS104 | DIODE | XE | |
| D8 -19 | | | 1SS133 | DIODE | XE | |
| D20 | | | HSS104 | DIODE | UUEM | |
| D20 | | | 1SS133 | DIODE | UUEM | |
| D23 | | | HZS6.8N(D2) | ZENER DIODE | | |
| D23 | | | RD6.8ES(B2) | ZENER DIODE | | |
| D24 | | | HSS104 | DIODE | | |
| D24 | | | 1SS133 | DIODE | | |
| D25 -28 | | | S5566B | DIODE | | |
| D29 | | | HZS6.2N(B2) | ZENER DIODE | | |
| D29 | | | RD6.2ES(B2) | ZENER DIODE | | |
| D30 ,31 | | | S5566B | DIODE | | |
| D32 | | | HZS30N(B) | ZENER DIODE | | |
| D32 | | | RD30ES(B) | ZENER DIODE | | |
| D33 | | | S5566B | DIODE | | |
| D34 -37 | | | HSS104 | DIODE | | |
| D34 -37 | | | 1SS133 | DIODE | | |
| D41 | | | HZS5.1S(B2) | ZENER DIODE | | |
| D41 | | | RD5.1JS(B2) | ZENER DIODE | | |
| FL1 | 1A | | 9-MT-76GK | FLUORESCENT INDICATOR TUBE | | |
| IC1 -3 | | | AN6554 | IC(OP AMP X4) | | |
| IC1 -3 | | | NJM2058D | IC(OP AMP X4) | | |
| IC1 -3 | | | UPC4574C | IC(OP AMP X4) | | |
| IC4 | | | PST529C | IC(SYSTEM RESET) | | |

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

△ indicates safety critical components.

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|--|---------------|-------------------|---|--|--|--------------------|
| IC5 IC6 IC9 IC9 Q1 ,2 Q1 ,2 Q3 Q3 Q4 ,5 Q6 Q11 Q12 Q13 A1 A1 | | | CXP5016-330S LB1641 M5218P NJM4558B 2SC1740S(Q,R) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA933S(Q,R) DTC124EN DTA124EN 2SC2003(L,K) 2SB772 2SC2320(E,F) W02-0776-05 W02-0975-05 | IC(MICROPROCESSOR) IC(MOTOR DRIVER) IC(OP AMP X2) IC(OP AMP ^2) TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR REMOTE CONTROL SENSOR REMOTE CONTROL SENSOR | | |
| SUB UNIT (X13-6202-71) E type only | | | | | | |
| C1 C2 C3 CN1 ,2 R1 R6 K1 D1 D2 D2 D3 D4 D4 Q1 Q2 Q2 Q3 | | | CE04LW1H010M CE04LW1H101M CE04LW1C101M E10-C408-05 RD14GB2E4R7J RD14GB2E391J S51-2078-05 S5566B HSS104A 1SS131 S5566B HSS104A 1SS131 2SA992(F,E) 2SC1740S(Q,R) 2SC945(A)(Q,P) 2SC2003(L,K) | ELECTRO 1.0UF 50WV ELECTRO 100UF 50WV ELECTRO 100UF 16WV FLAT CABLE CONNECTOR FL-PROOF RD 4.7 J 1/4W FL-PROOF RD 390 J 1/4W MAGNETIC RELAY DIODE DIODE DIODE DIODE DIODE DIODE TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | E E E E E E E E E E E E E E | |
| TUNER UNIT (X14-253X-XX) 0-11 : K, P 0-22 : U, UE, M 0-71 : X 2-71 : E | | | | | | |
| C1 C1 C1 C2 C3 C4 C4 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C13 | | | C91-0713-05 C91-0716-05 C91-0716-05 CC45FSL1H220J C91-0757-05 C91-0716-05 C91-0716-05 C91-0720-05 C91-0718-05 C91-0716-05 C91-0720-05 C91-0749-05 CK45FB1H103Z CK45FB1H102K CC45FSL1H020C CK45FB1H102K CK45FB1H102K CK45FB1H102K | CERAMIC 2.2PF K CERAMIC 3.9PF K CERAMIC 3.9PF K CERAMIC 22PF J CERAMIC 1000PF K CERAMIC 3.9PF K CERAMIC 3.9PF K CERAMIC 8.2PF K CERAMIC 5.6PF K CERAMIC 3.9PF K CERAMIC 8.2PF K CERAMIC 220PF K CERAMIC 0.010UF Z CERAMIC 1000PF K CERAMIC 2.0PF C CERAMIC 1000PF K CERAMIC 1000PF K CERAMIC 1000PF K | E KPUUEM X KPUUEM X E E E E E E E E KPUUEM X | |

E: Scandinavia & Europe K: USA P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

UE: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Telle ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|------------------|---------------|-------------------|-------------------|-------------------------|----------------------------|--------------------|
| C14 | | | C91-0709-05 | CERAMIC 1PF M | KPUUEM X E | |
| C14 | | | C91-0709-05 | CERAMIC 1PF M | | |
| C14 | | | C91-0713-05 | CERAMIC 2.2PF K | | |
| C15 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C16 | | | CC45FUJ1H080D | CERAMIC 8.0PF D | | |
| C17 | | | C91-0733-05 | CERAMIC 33PF J | E | |
| C18 | | | CC45FSL1H150J | CERAMIC 15PF J | | |
| C19 | | | C91-0713-05 | CERAMIC 2.2PF K | | |
| C20 | | | C91-0737-05 | CERAMIC 47PF J | | |
| C21 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C22 | | | CK45FB1H102K | CERAMIC 1000PF K | | |
| C23 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C24 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C25 , 26 | | | C91-0769-05 | CERAMIC 0.01UF M | | |
| C27 | | | CE04LW1C470M | ELECTRO 47UF 16WV | | |
| C28 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C29 | | | CF92FV1H473J | MF 0.047UF J | | |
| C30 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C31 | | | CC45FCH1H270J | CERAMIC 27PF J | | |
| C32 | | | CC45FCH1H560J | CERAMIC 56PF J | | |
| C33 -35 | | | CC45FSL1H101J | CERAMIC 100PF J | E | |
| C36 | | | CE04LW1C101M | ELECTRO 100UF 16WV | | |
| C37 | | | CC93FCH1H391J | CERAMIC 390PF J | | |
| C38 , 39 | | | C91-0769-05 | CERAMIC 0.01UF M | | |
| C40 | | | CK45FB1H102K | CERAMIC 1000PF K | | |
| C41 -43 | | | C91-0769-05 | CERAMIC 0.01UF M | | |
| C44 , 45 | | | CK45FF1H223Z | CERAMIC 0.022UF Z | | |
| C46 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C47 | | | C91-0769-05 | CERAMIC 0.01UF M | | |
| C48 | | | CK45FF1H223Z | CERAMIC 0.022UF Z | | |
| C49 | | | CE04LW1V4R7M | ELECTRO 4.7UF 35WV | | |
| C50 | | | CE04LW1H2R2M | ELECTRO 2.2UF 50WV | | |
| C51 | | | CE04LW1H3R3M | ELECTRO 3.3UF 50WV | | |
| C52 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C53 | | | CE04LW1HR47M | ELECTRO 0.47UF 50WV | | |
| C54 | | | CE04LW1C470M | ELECTRO 47UF 16WV | E | |
| C55 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C56 | | | CF92FV1H153J | MF 0.015UF J | | |
| C57 | | | CC93FCH1H471J | CERAMIC 470PF J | | |
| C58 | | | CF92FV1H473J | MF 0.047UF J | | |
| C59 | | | CK45FB1H471K | CERAMIC 470PF K | | |
| C60 | | | CE04LW1C470M | ELECTRO 47UF 16WV | | |
| C61 | | | CE04LW1H3R3M | ELECTRO 3.3UF 50WV | | |
| C62 | | | CE04LW1H2R2M | ELECTRO 2.2UF 50WV | | |
| C63 | | | CE04LW1HR47M | ELECTRO 0.47UF 50WV | | |
| C64 , 65 | | | CE04LW1C220M | ELECTRO 22UF 16WV | E KPUUEM X E E | |
| C66 , 67 | | | CC45FSL1H151J | CERAMIC 150PF J | | |
| C66 , 67 | | | CC45FSL1H151J | CERAMIC 150PF J | | |
| C66 , 67 | | | CF92FV1H122J | MF 1200PF J | | |
| C68 | | | CC45FSL1H151J | CERAMIC 150PF J | | |
| C69 , 70 | | | CE04LW1H2R2M | ELECTRO 2.2UF 50WV | UEM UEMX KP | |
| C71 , 72 | | | CF92FV1H153J | MF 0.015UF J | | |
| C73 , 74 | | | CF92FV1H273J | MF 0.027UF J | | |
| C73 , 74 | | | CF92FV1H433J | MF 0.043UF J | | |
| C75 | | | CK45FF1H223Z | CERAMIC 0.022UF Z | | |

E: Scandinavia & Europe K: USA

P: Canada


U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

 indicates safety critical components.

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|--|---------------|-------------------|--|---|------------------------|--------------------|
| C76 C77 ,78 C79 C80 C82 | | | CC45FSL1H220J CF92FV1H682J CE04LW1C470M C91-0769-05 C91-0769-05 | CERAMIC 22PF J MF 6800PF J ELECTRO 47UF 16WV CERAMIC 0.01UF M CERAMIC 0.01UF M | E | |
| C83 ,84 C85 ,86 C87 ,88 C89 ,90 C91 ,92 | | | CE04LW1V100M CC45FSL1H221J CE04LW1A101M CK45FB1H102K CF92FV1H123J | ELECTRO 10UF 35WV CERAMIC 220PF J ELECTRO 100UF 10WV CERAMIC 1000PF K MF 0.012UF J | | |
| C93 ,94 C95 ,96 C97 C98 C99 | | | CF92FV1H332J CE04LW1V4R7M CK45FB1H561K CE04LW1H010M CE04LW1J221M | MF 3300PF J ELECTRO 4.7UF 35WV CERAMIC 560PF K ELECTRO 1.0UF 50WV ELECTRO 220UF 63WV | KPUUEM | |
| C99 C99 C101-104 C105 C106 | | | CE04LW1J221M CE04LW1J470M CC45FSL1H221J CE04LW1C470M CE04LW1V100M | ELECTRO 220UF 63WV ELECTRO 47UF 63WV CERAMIC 220PF J ELECTRO 47UF 16WV ELECTRO 10UF 35WV | X E | |
| C108 C108 C109 C110 C111,112 | | | C91-0709-05 C91-0709-05 CE04LW1C101M CE04LW1A101M CE04LW1H010M | CERAMIC 1PF M CERAMIC 1PF M ELECTRO 100UF 16WV ELECTRO 100UF 10WV ELECTRO 1.0UF 50WV | KPUUEM X | |
| C113,114 C115,116 C117,118 C121 C122 | | | CC45FSL1H221J CC45FSL1H101J CE04LW1A470M CE04LW1J101M CE04LW1H470M | CERAMIC 220PF J CERAMIC 100PF J ELECTRO 47UF 10WV ELECTRO 100UF 63WV ELECTRO 47UF 50WV | E | |
| C123,124 C125-128 C127,128 C127,128 C129,130 | | | CE04LW1V100M CF92FV1H104J CF92FV1H473J CF92FV1H473J C90-1777-05 | ELECTRO 10UF 35WV MF 0.10UF J MF 0.047UF J MF 0.047UF J ELECTRO 5600UF 56WV | E KPUUEM X | |
| C131 C132 C135 C137 C140 | | * | CE04LW1J220M CE04LW1C470M CE04LW1E222M CE04LW1C101M CK45FB1H102K | ELECTRO 22UF 63WV ELECTRO 47UF 16WV ELECTRO 2200UF 25WV ELECTRO 100UF 16WV CERAMIC 1000PF K | | |
| C141 C142 C143-146 C147 C148,149 | | | CE04LW1V220M CE04LW1C470M CK45FF1H472Z C90-1349-05 CK45FF1H103Z | ELECTRO 22UF 35WV ELECTRO 47UF 16WV CERAMIC 4700PF Z NP-ELEC 1UF 50WV CERAMIC 0.010UF Z | E | |
| C150,151 C155,156 C157 C161,162 C163 | | | CK45FF1H472Z CE04LW1H010M C90-1349-05 C91-0769-05 CK45FF1H103Z | CERAMIC 4700PF Z ELECTRO 1.0UF 50WV NP-ELEC 1UF 50WV CERAMIC 0.01UF M CERAMIC 0.010UF Z | E E | |
| C164,165 TC1 TC2 ,3 | | | CC45FSL1H220J C05-0302-05 C05-0303-05 | CERAMIC 22PF J CERAMIC TRIMMER CAPACITOR(11PF CERAMIC TRIMMER CAPACITOR(20PF | E | |
| E1 | 2C | * | E20-0321-05 | LOCK TERMINAL BOARD ANT | E | |

E: Scandinavia & Europe K: USA P: Canada
 U: PX(Far East, Hawaii) T: England M: Other Areas
 UE: AAFES(Europe) X: Australia

△ indicates safety critical components.

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|------------------|---------------|-------------------|-------------------|-------------------------------|------------------------|--------------------|
| E1 | 2C | * | E20-0476-05 | LOCK TERMINAL BOARD ANT | KPUUEM | |
| E1 | 2C | * | E20-0476-05 | LOCK TERMINAL BOARD ANT | X | |
| E2 | 2C | | E13-0446-05 | PHONE JACK (4P) | | |
| E4 | 1C | | E13-0820-05 | PHONE JACK | | |
| E5 | 1C | | E20-0823-05 | TERMINAL BOARD (8P) SPEAKERS | | |
| E7 | 1A | | E11-0162-05 | PHONE JACK (3P) | | |
| CF1 , 2 | | | L72-0531-05 | CERAMIC FILTER | KPUUEM | |
| CF1 , 2 | | | L72-0531-05 | CERAMIC FILTER | X | |
| CF1 , 2 | | | L72-0536-05 | CERAMIC FILTER | E | |
| CF3 | | | L72-0099-05 | CERAMIC FILTER | | |
| CF4 | | | L72-0096-05 | CERAMIC FILTER | | |
| L1 | | | L31-0594-05 | FM-RF COIL | | |
| L2 | | | L31-0520-05 | FM-RF COIL | | |
| L3 | | | L31-0580-05 | FM-RF COIL | | |
| L4 | | | L31-0579-05 | FM-RF COIL | KPUUEM | |
| L4 | | | L31-0579-05 | FM-RF COIL | X | |
| L4 , 5 | | | L31-0579-05 | FM-RF COIL | E | |
| L6 | | | L40-1092-17 | SMALL FIXED INDUCTOR(1UH,M) | | |
| L7 | | | L32-0318-05 | FM OSCILLATING COIL | | |
| L8 | | | L30-0427-15 | FM IFT | | |
| L9 | | | L40-1092-17 | SMALL FIXED INDUCTOR(1UH,M) | | |
| L10 | | | L31-0509-05 | MW-RF COIL | | |
| L11 | | | L32-0277-15 | MW OSCILLATING COIL | | |
| L12 | | | L40-1092-17 | SMALL FIXED INDUCTOR(1UH,M) | | |
| L13 | | | L30-0362-05 | AM IFT | | |
| L14 | | | L30-0439-15 | FM IFT | | |
| L15 | | | L40-1021-14 | SMALL FIXED INDUCTOR(1.0MH,K) | | |
| L16 | | | L79-0125-05 | LC FILTER | E | |
| L17 | | | L79-0739-05 | LC FILTER | E | |
| L18 , 19 | | | L39-0085-05 | PHASE-COMPENSATION COIL | | |
| X1 | | | L77-0573-05 | CRYSTAL RESONATOR(4.5MHZ) | | |
| D | | | N09-1236-05 | TAPPING SCREW (3X16) | | |
| CP1 | | | R90-0187-05 | MULTI-COMP 0.22X2 K 5W | | |
| R35 | | | RD14NB2E101J | RD 100 J 1/4W | KPUUEM | |
| R35 | | | RD14NB2E101J | RD 100 J 1/4W | X | |
| R35 | | * | RD14NB2E151J | RD 150 J 1/4W | E | |
| R38 | | * | RD14NB2E221J | RD 220 J 1/4W | | |
| R46 | | | RD14NB2E101J | RD 100 J 1/4W | | |
| R49 | | * | RD14NB2E330J | RD 33 J 1/4W | | |
| R55 | | | RD14NB2E101J | RD 100 J 1/4W | E | |
| R145 | | | RD14GB2E101J | FL-PROOF RD 100 J 1/4W | | |
| R147, 148 | | | RD14NB2E101J | RD 100 J 1/4W | | |
| R169 | | | RD14NB2E101J | RD 100 J 1/4W | | |
| R181, 182 | | | RS14KB3D100J | FL-PROOF RS 10 J 2W | | |
| R187 | | | RD14NB2E4R7J | RD 4.7 J 1/4W | | |
| R199, 200 | | | RS14KB3D332J | FL-PROOF RS 3.3K J 2W | | |
| R203, 204 | | | RS14KB3A561J | FL-PROOF RS 560 J 1W | | |
| VR1 | | | R12-3130-05 | TRIMMING POT.(33K) FM TUNE | | |
| VR2 | | | R12-3126-05 | TRIMMING POT.(10K) AM TUNE | | |
| VR3 | | | R12-1089-05 | TRIMMING POT.(4.7K)VC0 | | |
| VR4 | | | R12-5060-05 | TRIMMING POT.(220K)FM SEPA | E | |
| S1 | 1A | * | S42-2170-05 | PUSH SWITCH (SPEAKERS) | | |
| S2 | 2C | | S31-2132-05 | SLIDE SWITCH (EMPHA/CH-SPACE) | UUEM | |

E: Scandinavia & Europe K: USA

P: Canada


U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

 indicates safety critical components.

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|------------------|---------------|-------------------|-------------------|-----------------------------|------------------------|--------------------|
| S3 | 1C | | S31-2136-05 | SLIDE SWITCH (IMPEDANCE) | | |
| D1 -4 | | | 2SC1740S(Q,R) | TRANSISTOR | UUEME | |
| D1 ,2 | | | KV1310-4 | VARIABLE CAPACITANCE DIODE | E | |
| D1 ,2 | | | KV1310-3 | VARIABLE CAPACITANCE DIODE | KPUUEM | |
| D4 | | | KV1310-3 | VARIABLE CAPACITANCE DIODE | X | |
| D4 | | | KV1310-3 | VARIABLE CAPACITANCE DIODE | KPUUEM | |
| D4 | | | KV1310-3 | VARIABLE CAPACITANCE DIODE | X | |
| D5 | | | HZS5.1N(B2) | ZENER DIODE | | |
| D5 | | | RD5.1ES(B2) | ZENER DIODE | | |
| D6 | | | KV1236(Z2) | VARIABLE CAPACITANCE DIODE | | |
| D8 -18 | | | HSS104 | DIODE | | |
| D8 -18 | | | 1SS133 | DIODE | | |
| D19 | | | HZS3.3N(B2) | ZENER DIODE | | |
| D19 | | | RD3.3ES(B2) | ZENER DIODE | | |
| D20 | | | HZS5.1N(B2) | ZENER DIODE | | |
| D20 | | | RD5.1ES(B2) | ZENER DIODE | | |
| D21 -24 | | | HSS104A | DIODE | E | |
| D21 -24 | | | 1SS131 | DIODE | E | |
| D23 ,24 | | | HSS104A | DIODE | KPUUEM | |
| D23 ,24 | | | HSS104A | DIODE | X | |
| D23 ,24 | | | 1SS131 | DIODE | KPUUEM | |
| D23 ,24 | | | 1SS131 | DIODE | X | |
| △ D25 | | | RBV-602LFA | DIODE | | |
| D26 | | | S5566B | DIODE | | |
| D27 | | | HSS104A | DIODE | | |
| D27 | | | 1SS131 | DIODE | | |
| D29 -32 | | | S5566B | DIODE | | |
| D34 ,35 | | | HSS104 | DIODE | | |
| D34 ,35 | | | 1SS133 | DIODE | | |
| D36 | | | HSS104A | DIODE | | |
| D36 | | | 1SS131 | DIODE | | |
| IC1 | | | LA1265 | IC(FM/AM TUNER) | | |
| IC2 | | | CX-7925B | IC(DIGITAL SELECT PLL) | | |
| IC3 | | | AN7470 | IC(FM MPX) | | |
| IC4 | | | M5218P-A | IC(OP AMP X2) | | |
| IC4 | | | NJM4558D-A | IC(OP AMP X2) | | |
| IC5 | | | LC7820 | IC(ELECTRO CONTROL SWITCH) | | |
| △ IC6 | | | TC9215P | IC(ANALOG SWITCH X 6) | | |
| △ IC7 | | * | STK4201/2 | IC | KPUUEM | |
| △ IC7 | | * | STK4201/2 | IC | X | |
| △ IC7 | | * | STK4201/5 | IC | E | |
| IC8 | | | UPC7812HF | IC(VOLTAGE REGULATOR/ +12V) | | |
| Q1 | | | 2SK241(Y) | FET | KPUUEM | |
| Q1 | | | 2SK241(Y) | FET | X | |
| Q1 | | | 3SK73(GR) | FET | E | |
| Q2 | | | 2SC1923(O) | TRANSISTOR | | |
| Q3 ,4 | | | 2SC1923(R,O) | TRANSISTOR | | |
| Q5 | | | 2SK161(Y,GR) | FET | E | |
| Q6 | | | 2SC1923(R,O) | TRANSISTOR | | |
| Q7 | | | 2SC1845(F,E) | TRANSISTOR | | |
| Q8 | | | 2SC1740S(Q,R) | TRANSISTOR | KPX | |
| Q8 | | | 2SC945(A)(Q,P) | TRANSISTOR | KPUUEM | |
| Q8 | | | 2SC945(A)(Q,P) | TRANSISTOR | X | |
| Q8 ,9 | | | 2SC945(A)(Q,P) | TRANSISTOR | E | |

E: Scandinavia & Europe K: USA P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

UE: AAFES(Europe) X: Australia

△ indicates safety critical components.

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位 置 | New Parts 新 | Parts No. 部 品 番 号 | Description 部 品 名 / 規 格 | Desti- nation 仕 向 | Re- marks 備考 |
|------------------|----------------|-------------------|----------------------|----------------------------|-------------------------|--------------------|
| Q10 , 11 | | | 2SC945(A)(Q,P) | TRANSISTOR | UEM | |
| Q12 | | | DTC124ES | DIGITAL TRANSISTOR | | |
| Q13 | | | DTA114ES | DIGITAL TRANSISTOR | | |
| Q14 | | | DTC124ES | DIGITAL TRANSISTOR | | |
| Q15 | | | DTA114ES | DIGITAL TRANSISTOR | | |
| Q17 , 18 | | | 2SC2878(B) | TRANSISTOR | | |
| Q19 | | | 2SA733(A)(Q,P) | TRANSISTOR | | |
| Q19 | | | 2SA933S(Q,R) | TRANSISTOR | | |
| Q20 , 21 | | | 2SC2878(B) | TRANSISTOR | | |
| Q22 | | | 2SA733(A)(Q,P) | TRANSISTOR | | |
| Q22 | | | 2SA933S(Q,R) | TRANSISTOR | | |
| Q25 | | | 2SA733(A)(Q,P) | TRANSISTOR | | |
| Q25 | | | 2SA933S(Q,R) | TRANSISTOR | | |
| Q26 , 27 | | | 2SC1845(F,E) | TRANSISTOR | | |
| Q29 , 30 | | | 2SA733(A)(Q,P) | TRANSISTOR | | |
| Q29 , 30 | | | 2SA933S(Q,R) | TRANSISTOR | | |
| Q31 | | | 2SD1266 | TRANSISTOR | | |

E: Scandinavia & Europe K: USA


P: Canada

U: PX(Far East, Hawaii) T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

 indicates safety critical components.

KR-A5010

SPECIFICATIONS

AUDIO SECTION

Rated Power Output (Except for Europe)

60 watts per channel minimum RMS, both channels driven at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.5% total harmonic distortion. (FTC)

Maximum continuous output power (For Europe)

(IEC) from 63 Hz to 12,500 Hz 0.7% T.H.D.
at 8 ohms 60 W + 60 W

(DIN) 1,000 Hz at 4 ohms 60 W + 60 W

Total Harmonic Distortion
(1 kHz 8 ohms) 0.1%

Input Sensitivity/Impedance

PHONO (MM) 2.5 mV/47 kohms

CD, TAPE, VIDEO 150 mV/47 kohms

Frequency Response

CD, TAPE, VIDEO 10 Hz - 70 kHz +0 dB
-3 dB

Signal-to-Noise Ratio (IHF-A)

PHONO (MM) 70 dB

CD, TAPE, VIDEO 100 dB

Graphic Equalizer

Center Frequencies 60 Hz, 300 Hz, 1 kHz,
3 kHz, 10 kHz

Control Range ± 12 dB

FM TUNER SECTION

Tuning Frequency Range 87.5 MHz - 108 MHz

Antenna Impedance 300 ohms balanced &
75 ohms unbalanced

Sensitivity

IHF 11.2 dBf (2.0 μ V at 300 ohms)

DIN (MONO) 0.9 μ V

(STEREO) 25 μ V

Signal-to-Noise Ratio at 65 dBf (IHF)

Mono 78 dB

Stereo 72 dB

Total Harmonic Distortion at 1,000 Hz

Mono 0.2%

Stereo 0.3%

Frequency response 30 Hz to 15 kHz +1.0 dB
-2.5 dB

Stereo Separation 40 dB at 1 kHz

AM TUNER SECTION

Tuning Range

530 kHz - 1.610 kHz

(with the AM tuning interval set at 10 kHz)

531 kHz - 1.602 kHz

(with AM tuning interval set at 9 kHz)

Usable Sensitivity 10 μ V (320 μ V/m)

Signal-to-Noise Ratio 50 dB

Total Harmonic Distortion 0.45%

Selectivity 25 dB

GENERAL

Power Consumption 2.0A...USA Model/150 W...Others

Dimensions 440 (W) \times 133 (H) \times 284 (D) mm
(17-5/16" \times 5-1/4" \times 11-3/16")

Weight (Net) 6.0 kg (13.2 lb)

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

Printed by: Schaltungsdienst Lange Berlin (Germany)

KENWOOD CORPORATION

Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

KENWOOD U.S.A. CORPORATION

2201 East Dominguez Street, Long Beach, CA 90810;

550 Clark Drive, Mount Olive, NJ 07828, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

P.O. Box 1075 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2

KENWOOD ELECTRONICS BENELUX N.V.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrucker-Str. 15, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.

Hi-Fi-VIDEO-CAR Hi-Fi

13, Boulevard Ney, 75018 Paris, France

TRIO-KENWOOD U.K. LTD.

17 Bristol Road, The Metropolitan Centre, Greenford, Middx. UB6 8UP (England)

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

4E Woodcock Place, Lane Cove, N.S.W. 2066, Australia

KENWOOD & LEE ELECTRONICS, LTD.

Wang, Kee Building, 4th Floor, 34-37, Connaught Road, Central, Hong Kong